

**FORAMINIFERAL FAUNA FROM THE OLIGOCENE
AND MIocene IN THE BÖRZSÖNY MOUNTAINS**

by

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INTRODUCTION

Foraminiferal studies of the Oligocene and Miocene formations of the Börzsöny Mountains were started conjointly with the geological mapping and prospecting activities conducted since 1971. The aim of our work was an exact stratigraphical assignment of the enclosing rocks.

Our statements and findings concerning the Oligocene and the Miocene have been based on samples from 55 boreholes and a number of outcrops in the Börzsöny area.

Whereas lots of paleontological descriptions have been devoted to megafossils from the study area since the last century, microfaunistical information has been available from a few studies only. Thus we make an attempt at a biostratigraphical evaluation, based on foraminiferal results obtained on the individual stratigraphic stages.

The Börzsöny Mountains are the westernmost member of the North Hungarian Mountain Range, belonging to the volcanic zones of the NW Carpathians. The study area is bound in the north and west by the Hungarian—Czechoslovakian border, in the south, by the Danube, and in the east, by a line connecting the localities Drégelypalánk, Borsosberény, Szendehely and Vác (Fig. 1).

Oligocene deposits in the Börzsöny Mts are restricted to the eastern and southern parts, while Miocene formations are observable throughout the study area. Lower Badenian sediments of most complete faunal content are known in the western and southern parts. Their connections can be traced to extend well into Slovakian territory. In the eastern and northern parts formations of Karpatian age are important, extending as far as the Salgótarján Basin.

FORAMINIFERAL RESULTS FROM THE OLIGOCENE—MIOCENE SEQUENCES

In the Oligocene and Miocene foraminiferal faunal assemblage of the Börzsöny Mts 48 families, 140 genera and 580 species are represented. Forms specifically unidentified or unidentifiable, and referred to as sp., have proved to be partly new species of restricted stratigraphical significance which can be of help only when used in conjunction with the associated fauna, and partly just incomplete, recrystallized and coated fragments. The faunal assemblage included several species recognized in Hungary for the first time, such as *Uvigerina steyri steyri* PAPP, *Planularia auris* (DEFRANCE), *Oolina marginatoperforata* (SEGUENZA), *Discorbis patelliformis* (BRADY), *Virgulinella miocenica* (CUSHMAN—PONTON), *Cymbalopora poeyi* d'ORBIGNY, *Bulimina dingdenensis* BATJES and several species of *Reophax* and *Globotextularia*.

During determination of the foraminiferal species, scanning electron microscopy supported the solution of several problems that could not have been cleared by using optical microscopy alone. One of these problems was the correct assignment of *Bolivina* and *Coryphostoma*. It seemed unnecessary to assign some *Bolivina* species to the genus *Coryphostoma*, because the chambers of *Bolivina* are always situated in two rows up to the far end of the specimen, while in case of *Coryphostoma*, an earlier biserial arrangement of the chambers is replaced by an uniserial one in the later chambers. The ornamentation of the species belonging to *Coryphostoma* shows a most characteristic reticulate pattern. In our opinion, only those *Bolivina* specimens can be assigned to *Coryphostoma*, where the arrangement of the chambers and the ornamentation of the surface are identical (*Bolivina sinuosa*).

The scanning electron microscopical examination of one-chambered *Lagena* raised another interesting problem. Here the aperture is situated on the elongated neck, every species being characterized by different type of surface ornamentation. These features were not always possible to detect by optical microscopy, owing to the small size of the specimens. In case of *Lagena striata*, the surface of the neck is covered by polygonal plates joining one another. Only specimens with this characteristic ornamentation can be classified as *L. striata*. *Lagena* with ribs characterized by pearl-like ornaments, spiral or ring-like ribs on the neck part already belong to different species. Thus separated on the basis of neck ornamentation forms so far classified as *L. striata* may be split up into several species. The character of the test surface perforations has exhibited several remarkable features, too. In some *Bulimina* species the perforation is a long "slot" rather than a round hole. In others, the very small pores could be observed only when magnified several thousand times.

So large as to cover the entire surface of test, the pores of planktonic Foraminifera are of different character and ornamentation in case of each genus. Identification of the species can be based on these features. In case of Lenticulina only parts of the chambers are perforate, while the periphery and the partitions of the chambers include imperforate surfaces from which minor triangular ornamentations result.

The distribution of the identified species in the particular stratigraphic stages is shown in Table 6, based on data from the Börzsöny Mts. Here we have followed the system of A. R. LOEBLICH and H. TAPPAN (1964).

Checking the list of species, the reader will notice the leading role of the genera and species with arenaceous tests in the Oligocene. Consequently the sea depth could hardly exceed a value of about 150 meters, and the bottom seems to have been definitely sandy. Cold currents may have contributed to the proliferation of arenaceous species because these species favour cold water sea environments. Low temperature of the Oligocene sea seems to be supported by the rarity and scarcity of Miliolidae, because these could not find favourable living conditions throughout the Oligocene. The shallow and warm water of the Miocene sea, however, provided favourable circumstances for the sprawl of species and genera of the Miliolidae, Lagenidae, Buliminidae and Globigerinidae families. The benthonic faunal assemblage is indicative of a warm and shallow-water environment, while the abounding planktonic species suggest direct communication with the open sea. In areas where such communications were lost, a Lagenida-dominated faunal assemblage became prevalent, marking a sea-depth range of 120–150 m. This depth, however, was not constantly ensured by an intense subsidence of the sea floor, but occasional and sudden graben subsidences may have brought about favourable circumstances (Szokolya graben) (Table 7).

Benthonic fauna assemblages

Microfaunal studies have enabled us to identify and correlate the following foraminiferal assemblages based on the benthos within the study area.

1. Kiscellian stage

a) *Cyclammina*—*Bathysiphon*—*Spiroplectammina* assemblage, known from the Hárshegy Sandstone. The tests of Foraminifera from this assemblage are large. Apart from Cyclammina, Bathysiphon and Spiroplectammina various species of Heterolopae and Tritaxiae are also frequent.

b) *Uvigerina hantkeni*—*Planularia*—*Tritaxia* assemblage characteristic of those parts of the Kiscell Clay (Formation) which are rich in Foraminifera. Most characteristic representatives of this assemblage are *Uvigerina hantkeni* CUSHMAN—EDWARDS, *Planularia kubinyii* (HANTKEN) and *Tritaxia szaboi* (HANTKEN).

c) *Rhabdammina*—*Reophax* assemblage typical of higher beds of the Kiscell Clay. Among the arenaceous genera, the representatives of Rhabdammina are predominant. In addition, frequent forms are the representatives of Reophax which excel with a specific diversity, though Hyperammina, forms hav-

ing primitive arenaceous shells, are also present with a lot of species in the assemblage.

In the near-shore embayments and lagoons a characteristic assemblage of arenaceous thin-walled forms evolved, belonging to the genera *Ammomarginulina*—*Ammobaculites*. This assemblage is of no chronostratigraphical value, being characteristic of the facies only. The assemblage was observed in a rather limited interval of the borehole Berkenye 4. In the same section (borehole Berkenye 4: 232.0—234.0 m), another noteworthy assemblage, that of *Globotextularia*, was observed, too.

2. Egerian stage

a) *Spiroplectammina*—*Uvigerina steyri steyri* assemblage typical of basin sediments of schlier facies. The composition of the microfauna is still very near to that of the Kisell Clay. Frequent forms are *Spiroplectammina carinata* (D'ORBIGNY) and different varieties of *Uvigerina steyri steyri* PAPP.

b) *Cribrozonion*—*Ammonia*—*Rotalia* assemblage most widely distributed in the Börzsöny Mts. The assemblage is characterized by the presence of *Cribrozonion hiltermanni* (HAGN), *Ammonia beccarii* (LINNE) and *Rotalia propinqua* (ROEMER) in considerable quantities. In addition to these, are *Cribrozonion minutum* (REUSS), *Bolivina antiqua* D'ORBIGNY, *Fursenkoina schreibersiana* CŽJŽEK, *Quinqueloculina seminula* (LINNE) and various species of *Polymorphina* frequent forms.

The poorly preserved foraminiferal fauna of the glauconitic sands and sandstones is stratigraphically unimportant, but their superposition directly to the Egerian schlier in the borehole Diósjenő 7 is an observed fact.

The formations constituting the Bécske sequence have proved to be non-fossiliferous (boreholes Bécske 1 and 2, spudded earlier). As shown by detailed research in the Börzsöny Mts, however, nonfossiliferous intervals alternate with beds that do contain some fossils, namely assemblages of *Ammonia*—*Rotalia*—*Cribrozonion* type. Microfossils are very poor here, only *Ammonia beccarii* (LINNE) is represented by a considerable amount of specimens along with some *Rotalia propinqua* (ROEMER) and *Cribrozonion hiltermanni* (HAGN). Coalified plant remains are generally frequent in the washing residues.

While studying the Foraminifera we had to realise that the Paleogene zonation proposed by L. MAJZON (1966) could not be applied to the entire territory of the country. Benthonic faunas are very sensitive to changes in environment, and it is very difficult to find species suitable for long-distance correlation. Thus we consider the Oligocene foraminiferal assemblages from the Börzsöny Mts to be of typically local importance.

The foraminiferal assemblages of the Miocene, in turn, are not so restricted anymore, being readily corralable with counterparts from other regions.

3. Karpatian stage

a) *Ammonia beccarii* assemblage contained in the littoral sands and sandstone of Karpatian age. The fauna consists of species of small size due to the proximity of their habitat to the shoreline and to the sandy facies. The presence

of *Ammonia beccarii* (LINNE) is very frequent in the otherwise poor faunal assemblage.

b) *Uvigerina graciliformis*—*Dyocibicides biserialis* assemblage characteristic of the basinal schlier sequence. The composition of the faunal resembles very much to that of the Lower Badenian deposits. In some intervals there are lots of *Lenticulina* and, as a rule, an increase in the number of *Lagenidae* is conspicuous. The abundance of *Lagenidae* is due to a definite water depth range (120—150 m). *Lenticulina inornata* (D'ORBIGNY), *L. vortex* (FICHTEL—MOLL), *L. cultrata* (MONTFORT), *L. calcar* (LINNE), *Lagena striata* (D'ORBIGNY), *L. sulcata* (WALKER—JACOB), *L. hexagona* (WILLIAMSON) are represented by greatest numbers of specimens.

4. Badenian stage

The sedimentary deposits representing the Lower Badenian substage are freshwater diatomaceous bed with fish remains overlying volcanic rocks and grading into brackish-water sediments.

These are characterized by a *Bulimina*—*Florilus*—*Ammonia* assemblage (a). The fauna here is not rich in species, but the number of specimens of *Ammonia beccarii* (LINNE), *Florilus boueanus* (D'ORBIGNY) and *Bulimina elongata* D'ORBIGNY may be very high in some samples.

The brackish water beds are overlain by marine sediments that are very rich in Foraminifera, and that are characterized by a rich and varied assemblage of *Lagenida* (b). Characteristic forms of the assemblage are *Lenticulina echinata* (D'ORBIGNY), *L. paulae* (KARRER), *Planularia auris* (DEFRANCE), *P. grundensis* (KARRER), *P. moravica* (KARRER), *Marginulina hirsuta* (D'ORBIGNY), *M. cristellaroides* CŽJZEK, *Nodosaria raphinistrum* LINNE, *Lingulina costata* D'ORBIGNY, *Vaginulina legumen* (LINNE) and *Froندicularia annularis* D'ORBIGNY. The assemblage consists of rich and well-preserved forms of big size.

The littoral Lajta sequence is characterized by an *Amphistegina*—*Heterostegina* assemblage (c), composed of thicker-walled forms. Major forms in the assemblage are *Borelis melo* (FICHTEL—MOLL), *Cymbalopora poeyi* D'ORBIGNY, *Quinqueloculina zigzag* D'ORBIGNY, *Spiroplectammina carinata* (D'ORBIGNY).

On evidence of foraminiferal studies the Börzsöny Mts area must have belonged, in Badenian time, to a basin the major part of which extends into Slovakian territory in western to northwestern direction. Because of the higher rate of subsidence, however, the Slovakian tracts of the basin witnessed marine sedimentation even in Late Badenian time, while the Börzsöny area was already an emergent land.

Planktonic assemblages

In the course of the micropaleontological studies both benthonic and planktonic assemblages were differentiated.

Several attempts at establishing planktonic zones in the Oligocene of Hungary have already been made (KENAWY 1968, SZTRÁKOS 1974, CICHA et al. 1975), but these zonations cannot be correlated either with one another or the internationally accepted zones of BOLLI (1966) (Table 8).

There are considerable differences in the appearance and extinction dates of the species, and there is a remarkable difference in the number of the taxa defined by the various authors. While A. KENAWY (1968) described 5 taxa of the Middle Oligocene, in the work of K. SZTRÁKOS (1974, 1979) there are 33 taxa. Upon more scrutinized examination, further marked divergencies are recognizable.

The zonation of the Miocene formations based on the plankton poses similar problems. The experimental planktonic zones defined on basis of the Lower Badenian strata of the Mecsek Mts (I. KORECZ-LAKY 1971) can be readily applied to other Hungarian deposits, but they are difficult to use for long-distance correlation, because when describing the zones proper, the authors generally rely on different taxa (Table 9). The root of the problem lies in the fact that the paleogeographic pattern of that is now Hungary, disintegrated into a number of minor subbasins as it was, enabled the appearance and spread of plankton only in those areas, where an open-sea connection was available. Ecological and climatic factors had an important role in the spread of the individual species. To perform the plankton zonation of the Hungarian Oligocene and Miocene formations further studies seem indispensable.

Some efforts have been made at establishing planktonic foraminiferal zones in the Börzsöny Mts area (BALLA et al. 1981). However, these have only increased the number of zones without actually enhancing progress in long distance correlation.

The planktonic assemblages presented in this work have been grouped on the basis of the stratigraphical position and frequency of the species (Table 10).

1. Kiscellian stage

a) The *Globigerina ouachitaensis ouachitaensis* assemblage abounds with the eponymous species and *Globigerina ampliapertura* BOLLI, *G. ciperoensis ciperoensis* BOLLI, *G. tripartita tripartita* KOCH. *G. ouachitaensis ouachitaensis* HOWE and WALLACE is known to abound in the boreal regions of NW Europe proving that the waters of the Oligocene sea in which the Kiscell Clay was deposited must have been relatively cool in the study area, too.

This assemblage was identified in the Kiscellian interval of the Wind brickyard's borehole at Eger as well, being regarded as an assemblage of wider distribution.

b) The *Turborotalia munda munda* assemblage can be correlated with the benthonic assemblage of *Tritaxia szabói* (HANTKEN), *Planularia kubinyii* (HANTKEN), *Uvigerina hantkeni* CUSHMAN—EDWARDS in the Kiscell Clay. This zone is known from N Europe and N Hungary as well.

2. Egerian stage

a) The *Globorotalia opima opima* assemblage together with the benthonic species *Uvigerina steyri steyri* PAPP is characteristic of the Egerian schlier sequence. Further species occurring in the assemblage are *Globorotalia obesa* (BOLLI), *G. opima nana* BOLLI, *Chiloguembelina gracillima* (ANDREAE) and *Globigerina ampliapertura* BOLLI. The assemblage is known from the Egerian sediments of Eger, Novaj and Törökbalint as well.

b) The assemblage *Globigerina praebulloides* is characteristic of the younger beds of the schlier sequence. The eponyme occurs in great quantity associated with *Globigerina ciperoensis ciperoensis* BOLLI, *Globorotalia crassata* (CUSHMAN), *G. opima nana* BOLLI and *Chiloguembelina cubensis* (PALMER).

Similarly to the case of the benthonic species, the Oligocene planktonic Foraminifera are characterized by a bad preservation state, corrosion, discolouring and incrustation throughout the Börzsöny area. The open-sea communication seems to have been short-lived too, as the plankton here could not increase, nor diversify.

3. Karpatian stage

The characteristic planktonic assemblage of the Karpatian schlier sequence comprises a great number of the *Globigerina quinqueloba* and *G. concinna*. Further forms characteristic of the assemblage are *Globorotalia acostaensis* BLOW, *G. obesa* (BOLLI), *Globigerina praebulloides praebulloides* BLOW, *G. trilocularis* D'ORBIGNY, *G. triloculinoides* PALMER and *G. woodi woodi* JENKINS. The Karpatian sea, however, extended only as far as the NE to E margins of the study area, thus providing no open basin where planktonic organisms could have found their optimal living circumstances. The Karpatian stage in the Mediterranean region is generally defined by the first occurrence of *Globigerinoides sicanus* DI STEPHANI. In Hungary, this species appears as late as the Badenian owing to climatic influences and provincialism.

4. Badenian stage

In the Central Paratethys, Hungary included, the genus *Orbulina* appears first at the base of the Lower Badenian.

a) In the *Orbulina universa*—*Globigerinoides triloba* assemblage the eponymous species is predominant. *Globigerina druryi* AKERS, *G. apertura* CUSHMAN, *G. decoraperta* TAKAYANAGI—SAITO, *G. foliata* BOLLI, *G. woodi woodi* JENKINS, *Globigerinoides sicanus* DI STEPHANI, *G. rubra* (D'ORBIGNY), *G. transitoria* BLOW, *Globorotalia bykovae minoritesta* PAPP—RÖGL, *G. acostaensis* BLOW are observed in minor quantities. Beds with an *Orbulina*—*Globigerina* fauna are widely distributed in the Lower Badenian, representing a key horizon in the SW Transdanubian basins, the Mecsek Mts and in the environs of Sopron and Szilvásvárad.

b) In the *Globorotalia mayeri*—*Globorotalia scitula* assemblage, apart from the species of the former assemblage, there are Globorotalia represented by a great number of specimens. The fauna of this interval is poor, but the preservation is very good. The assemblage is observable, outside the Börzsöny Mts, in the W Mecsek as well.

The *Globoquadrina* assemblage is characteristic of the higher horizons of the Lower Badenian stage. *Globoquadrina* are characteristic, easily recognizable forms, being good indices of the assemblage. Naturally, *Globigerina* and *Globorotalia* are also present. Most frequent forms are the *Globoquadrina altispira altispira* CUSHMAN—JARVIS, *G. dehiscens* CHAPMAN—PARR—COLLINS, *G. langhiana* CITA—GELATI. The assemblage is known from the Mecsek and from N Hungary. On evidence of our observations, the assemblages defined

by *Orbulina universa* D'ORBIGNY—*Globigerinoides triloba* (REUSS) and *Globorotalia mayeri* CUSHMAN—ELLISOR—*Globorotalia scitula* (BRADY) can be correlated with the lower Lagenida zone, while the Globoquadrina assemblage corresponds to the upper Lagenida zone.

Foraminifera of irregular growth

Since the publication of our paper on Foraminifera of irregular growth (1977), we have found, in the studied samples, several specimens of abnormal shell structure (Plate CIV). In some cases we observed regeneration processes, when, after certain injuries, the animal had rebuilt the damaged chamber. These injuries are especially frequently met in the shallow-water littoral zone, where wave action endanger Foraminifera living on a rather rough, sandy bottom. Injuries were observed most frequently in the case of genera of uniserial shell structure (Dentalina, Nodosaria). Minor injuries are repaired and the respective shells sealed by lime secretion of the plasm, but this will not produce a new chamber. In case of major injuries, when the chambers are broken and even the septa partitioning the chambers are badly damaged, the plasm will secrete several thin-walled chambers to eliminate the damage. Chambers built after injuries are already smaller or may have a different shape. Even the plasm may be supposed to get hurt itself, reducing its ability to secrete lime which may result in a smaller and deformed chamber.

Aging of the plasm can lead to some deformation as well. An old plasm is not able to produce chambers of a shape and size similar to that it produced earlier. Arenaceous Foraminifera are particularly liable to undergo some deformation of the shell after the individual dies, as a response to the diagenesis of the enclosing sediment. Arenaceous tests resist pressures applied from different directions, react to these forces by deformation rather than fracturing. Such mechanical deformations are quite frequently met with. Furthermore deformations resulting from a sessil way of living cannot be considered pathological. In such cases the form of the test assimilates with the object or plant it is adhered to throughout its life as a member of the sessil benthos (e.g. *Cibicides lobatulus*). Observation of such deformations may provide valuable information on the paleoenvironment and the ecological factors.

Paleoecological implications

Paleoenvironmental circumstances and development of faunal assemblages are governed by the interaction of two or more factors. Most important factors determining the living circumstances of Foraminifera are the depth of the sea water, its temperature, salinity, agitation and aeration and the quality of the bottom. Apart from these factors, food distribution and light penetration affect, in an indirect way, the existence of the fauna.

In the rich foraminiferal assemblages of the Kiscellian, arenaceous species dominate the sediments, including the following taxa: Karreriella, Martinottiella, Cyclammina, Tritaxia, Triplasia, Spirolectammina, etc. Assemblage of this type appear at depths below 100 m and become predominant in the deep sublittoral to bathyal zone (150—200 m: BANDY 1956, MURRAY 1973, PHLEGER

1960). The calcareous benthos comprises species of the Lagenidae family, represented in a great number of individuals, namely *Uvigerina*, *Planulina* and *Heterolepa* species. These taxa become frequent, according to recent faunal data (PHLEGER 1960, MURRAY 1973), below the 100–200 m depth range. In case of *Planulina* and *Heterolepa*, even deep bathyal to abyssal occurrences are quite usual (SAIDOVÁ 1976). The temperature of the water at such a depth corresponds even in the subtropical to temperate zones, to the surface water temperature of the polar (arctic) seas.

VAUGHAN et al. (1941) differentiated five zones of seawater temperature:

1. Polar (arctic) zone: $-1.9 - +5^{\circ}\text{C}$
2. Subarctic zone: $5 - 10^{\circ}\text{C}$
3. Temperate climatic zone, here the temperature changes seasonally with a maximum of 25°C
4. Subtropical zone: $15 - 33^{\circ}\text{C}$
5. Tropical (hot) zone: $25 - 40^{\circ}\text{C}$ or even higher.

In the tropical sea from the surface to the bottom, all five temperature zones are represented. The temperature limits are not strict, but the difference in the fauna between the zones is very marked especially so in the case of the plankton. The predominant species in the tropical, temperate and arctic zone are characteristically different.

Considering the original depth of the Kiscell Clay deposition, we must take into consideration the data provided by the plankton as well, because the benthos to plankton ratio in some horizons may be 1:1 or even 0.5:1. According to recent observations performed in the Mediterranean (CITA et al. 1965), below 100 m depth, the ratio increases in favour of the plankton. Accordingly, the depth of the Kiscellian sea did reach deep sublittoral to bathyal values.

The temperature may have been similar to that in the temperate zone, as evidenced by the great number of arenaceous forms. Lower temperature and greater sea depth can be inferred from the subordinate role of *Miliolidae*, too. Salinity must have been normal, the bottom having been satisfactorily supplied with O_2 . The *Ammomarginulina*–*Ammobaculites* assemblage indicates seaside lagoons (MURRAY 1973, PHLEGER 1960). The development of such primitive arenaceous forms is controlled by the turbidity of the water, its shallow depth and higher temperature. Change in the temperature means, at the same time, a change in the chemical properties of the water as well. Because of the higher temperature, the arenaceous tests are smaller than in cold water regions.

The Upper Oligocene fauna suggests a gradual decrease of water depth in Later Oligocene time. Over the area of the Szécsény Schlier Formation the foraminiferal assemblages indicate a slow decrease of the depth of deposition being similar to the communities described by M. HORVÁTH (1980), as far as their basic features are concerned. Thus we can accept HORVÁTH's conclusions as concerning the genetic circumstances of schlier deposition as well. Accordingly, the bulk of the Szécsény Schlier was formed in the middle to deep sublittoral zone (120–200 m). Rapid sedimentation of the schlier is indicated by the relatively poor plankton and the impoverishment of the benthos as compared to the upper part of the Kiscell Clay (personal communication by M. HORVÁTH).

In the N to NE parts of the Börzsöny Mts, an isochronous facies equivalent of the Szécsény Schlier is the Kovačov Formation. The near-shore, shallow sublittoral origin of this unit is clearly shown by the *Cribrozonion*–*Ammo-*

nia—Rotalia—Florilus—Quinqueloculina assemblage (MURRAY 1973, BOLTOWSKOY 1970, BANDY 1956). The foraminiferal fauna of the glauconitic sandstone (Pétervására Sandstone Formation) provides very few information on the paleoecological conditions. The assemblage is poor, probably owing to cold currents. Glauconite is formed in a biotope with currents between 30—200 meters, below 15 °C, thus our poor faunal assemblage may have lived under such circumstances. In Early Miocene Eggenburgian time, the Börzsöny area became an emerged landmass. This terrestrial period is represented by the Zagyvapálfalva Clay Formation, overlain unconformably and transgressively by the Egyházasgerge Sandstone Formation. The foraminiferal fauna of this formation, already belonging to the Karpatian stage, is represented only by *Ammonia beccarii*. This species is tolerant of varying temperature, salinity and water depth (MURRAY 1973, PHLEGER 1960). Considering the circumstances and modes of supposition of the strata, we can place the *Ammonia beccarii* assemblage of the Egyházasgerge Sandstone Formation in a littoral, fine-grained sandy environment, with a water depth not exceeding a few meters.

The sediments with *Ammonia* are overlain by fine-grained pelitic sediments as a result of the progress of transgression (Garáb Schlier Formation). Characteristic forms of a rich foraminiferal fauna are *Uvigerina graciliformis* (PAPP—TURNOVSKY), *Dyocibicides biserialis* (CUSHMAN—VALENTINE), *Heterolepa dutemplei* (D'ORBIGNY), Lagenida and *Globigerina quinqueloba* NATLAND. This faunal assemblage must have lived in the deep sublittoral zone. Taxa characteristic of water depth of less than 100 m in the foraminiferal assemblage of sediments of schlier facies are rare. Like Cibicides and Heterolepa, the representatives of Dyocibicides conducted a sessil benthonic way of life (BLANC—VERNET 1969). The abundance of plankton in some beds suggests temporary revival of currents and subtropical water temperatures (VAUGHAN et al. 1941). A littoral equivalent of the basin-facies schlier deposit is the Fót Formation. The lithotope here consists mainly of fine to coarse-grained sands. The faunal assemblages imply a shallow-water sublittoral biotope characterized by normal salinity, a rich vegetation, a good aeration, and weak agitation of the water.

Foraminifera, in general, prefer the clear-water and weakly agitated sea regions. In case the water contains a lot of suspended fine volcanic dust, the fauna will perish in great masses. This may explain that, quite often, volcanic tuffs contain a maze of foraminiferal shells.

Overlain by the Börzsöny Andesite Formation, the tuffaceous formations are the first products of a reviving Early Badenian volcanic activity (Kismaros). In the immediate overburden, in some places near Szokolya and Vámosmikola, diatomaceous layers with fish remains are locally found, the fossils in them being of freshwater — lacustrine origin (M. HAJÓS 1977). The freshwater formations are overlain by sediments of a slightly brackish seawater. The foraminiferal assemblage of the sediments (*Ammonia beccarii*—*Florilus boueanus*) indicates a shallow sublittoral environment.

In the Early Badenian subtropical warm-water sea, rich assemblages came to exist, with the domination of the Lagenidae family. These assemblages represent the deep sublittoral zone. Species like *Uvigerina macrocarinata* PAPP—TURNOVSKY, *U. pygmaea* PAPP—TURNOVSKY, *U. venusta* FRANZENAU in this assemblage become predominant in the deep sublittoral—shallow bathyal zone (SAIDOVÁ 1976), as deduced from modern analogies. However, we can

exclude greater depths, because there are few *Bolivina* and *Cassidulina*. Warmer temperature had its effect on the size of the tests as well, because the secretion of lime is a function of water temperature. This accounts for the frequency of specimens of 5–25 mm size in the Lower Badenian sediments. The effect of cold currents manifested itself in the Early Badenian sea as well, as proved by the occasional enrichment of arenaceous forms.

The enrichment of the planktonic species varies from area to area, e.g. in the environs of Letkés the plankton to benthos ratio is 70:30, while near Szokolya the ratio is inverted. This areal distribution implies westward currents or a westward openness of the sea. Planktonic Foraminifera live in greatest quantities in the topmost water layers, being present, anyway, throughout the waterhead (L. MAJZON 1966). This mass sprawl down to 100 m depth is dependent on the availability of light and food, that are closely connected. Notely, this depth interval of the sea abounds with diatoms providing sufficient food supply for the plankton.

During its life cycle the plankton changes the water depth at which it lives. Some species like *Orbulina universa* breed in the deeper waters and will come up close to the surface only later. This change migration is reflected in the thickness of the shell wall. The walls of the specimens living in deeper waters are thinner and the shell is more fragile than it is the case in the near-surface water layers. Currents have an important role in transporting the plankton for great distances. This is the reason why plankton species are sometimes found in quite shallow-water deposits (e.g. the Lajta Limestone). As some of the benthonic species may have lead a planktonic way of life in their early days, thus the forms living on the sea floor and otherwise spreading very slowly, may populate quite distant places rather quickly.

As the isochronous facies equivalents of the Baden Clay Formation, sediments belonging to the Pécsszabolcs Formation can be traced over the marginal parts. The foraminiferal fauna is characterized by very frequent occurrence of *Heterostegina* and *Amphistegina*. This type of assemblage is abundant in calcareous lithotopes of rich vegetation as well as in reef environments (BLANC—VERNET 1969, MURRAY 1973). The water level possibly did not exceed a few meters, the salinity seems to have been close to the normal value, though as believed by some authors (MURRAY 1973), *Heterostegina* tolerate a hypersaline environment quite well. Good aeration, a satisfactory O₂ content and subtropical water temperature may be inferred quite clearly from the composition of the foraminiferal fauna and the associated vegetation and faunal elements (algae, sea urchins, corals, etc.).

STRATIGRAPHICAL EVALUATION

Mapping and prospecting boreholes drilled in the Börzsöny area enabled a more exact understanding of the Oligocene—Miocene formations. From detailed examination of the foraminiferal assemblages the stratigraphic column to be set forth in detail herein after can be inferred (Fig. 14).

Kiscellian stage

The Lower Oligocene in the study area is represented by the Kiscell Clay and the Hárshegy Sandstone. The Hárshegy Sandstone Formation is restricted to the S part of the mountain, being exposed near Szendehely. It was also recorded from borehole Berkenye 4 (223.0—167.0 m), alternating with the Kiscell Clay, intertonguing with it, proving the isochrony of the two formations. Thus the Hárshegy Sandstone is a littoral isochronous facies equivalent of the Kiscell Clay (as demonstrated by T. BÁLDI et al. 1976). The fauna of the littoral sediments is identical with that of the basin facies, being anyway much poorer than this (Hárshegy Sandstone Formation).

The Kiscell Clay has been cut by several boreholes (Berkenye 3: 90.0—26.5 m, Berkenye 4: 331.0—2.0 m, Szendehely 5: 85.0—9.0 m, Márianosztra 14: 116.7—41.0 m, Márianosztra 3: 100.2—44.0 m, Drégelypalánk 2: 481.3—460.0 m). It has a rather sandy and a more argillaceous variety, properly characterized by microfossils. In the sandy variety, larger arenaceous forms such as *Cyclammina*, *Bathysiphon*, *Spirolectammina* and *Tritaxia* occur. In the argillaceous facies *Planularia kubinyii* (HANTKEN), *Tritaxia szabói* (HANTKEN), *Uvigerina hantkeni* (CUSHMAN—EDWARDS), *Planulina costata* (HANTKEN), *Karreriella hantkeniana* CUSHMAN, *Marginulinopsis fragaria* (GÜMBEL) are frequent. The higher horizon of the Kiscell Clay is characterized by an abundance of *Rhabdammina abyssorum* M. SARS and a specific diversity of *Reophax* (boreholes Berkenye 4, 3, 1; Kiscell Clay Formation).

Egerian stage

The margin basin sediments of the Egerian schlier sequence are characterized by a rich foraminiferal assemblage. The microfauna resembles to that of the Kiscell Clay, with some characteristic species missing. Characteristic form in this formation is *Uvigerina steyri steyri* PAPP, defining the pres-

ence of the Egerian stage (boreholes Drégelypalánk 2, Nógrád 5 and Nőtincs 1; Szécsény Schlier Formation).

Above the marine formations there follows a sequence deposited under lower salinity conditions, as evidenced by *Cribrononion hiltermanni* (HAGN), *Ammonia beccarii* (LINNE), *Rotalia propinqua* ROEMER. Additional frequent species include *Cribrononion minutum* (REUSS), *Protelphidium subgranosum* (EGGER), *Bolivina antiqua* (D'ORBIGNY), *Furcicosta schreibersiana* (CŽJŽEK), *Quinqueloculina seminula* (LINNE) and Polymorphinæ. The formation has the widest extension in the study area, having been intersected by most boreholes such as Drégelypalánk 2 (upper part), Nőgrád 2, Nőgrádverőce 2, Borsosberény 2, Kóspallag 1, Kismaros 1, Szokolya 6, Diósjenő 4, 6, 7, and the deposits underlying the volcanics in borehole MÁrianosztra 14 (Kovačov Formation).

The very poorly preserved foraminiferal fauna from the glauconitic sands and sandstones is not diagnostic in terms of age. It is known to form interbedded layers of considerable thickness in the younger parts of the schlier sequence, or as continuous unit representing a littoral equivalent of the schlier (boreholes Diósjenő 7, 8, and 9, Pétervására Sandstone Formation).

The youngest of the Oligocene deposits are assignable to the Becske sequence. Its regressive character is proved by the lagoonal deposits of a regressing sea, carbonized plant remains, traces of coal, a scarce brackish-water fauna, continental detrital rocks and variegated clays. Formerly, on the basis of the boreholes Becske 1 and 2, the Becske sequence was considered as being devoid of fossils. Geological fields survey descriptions did not use the term consequently, either. In borehole Borsosberény 2 the Becske sequence was identified from 25.0 to 0.0 m, but the microfauna is uniformly the *Cribrononion—Ammonia—Rotalia* assemblage of the schlier. Borehole Szokolya 7 is considered in its total length as belonging to the Becske sequence, however, in the lower part the microfauna corresponds to that of the schlier already. The sediments of the 167.0—19.0 m interval of the borehole Kismaros 1 are assigned to the Becske sequence, but the microfauna between 34.2—19.6 m corresponds to that of the schlier. On evidence of our studies, the Becske sequence is considered as a lagoonal deposit with coal stringers and a brackish-water fauna, being correlative with the Kovačov Formation.

Eggenburgian stage

The Lower Miocene in the Börzsöny Mts is represented by terrigene variegated clays with sands and pebbles, containing no Foraminifera. Its stratigraphical classification was subject to long debates. Because of the lack of fossils, the rocks involved were alternately assigned either to the Oligocene, or to the Miocene.

Studies in the Dunazug area have helped to solve this problem. We succeeded in identifying a marine grey sand at Site 13 in the rivulet Felsőbogdány. The mega- and microfossils therein show quite clearly their Eggenburgian age. This littoral formation (sequence with larger pectinids) is isochronous with the terrestrial unfossiliferous variegated clays of the Börzsöny area (Fig. 14). The isochrony of the two formations can be proved on the basis

of their intertonguing in the Salgótarján Basin (personal communication by L. BARTKÓ). Accordingly, the unfossiliferous, terrestrial variegated clay sequence is regarded as belonging to the Eggenburgian (Zagyvapálfalva Formation).

No Ottangian formations are known to us from the Börzsöny area as yet.

Karpatian stage

In the Börzsöny area, no pre-Karpatian foraminifera-bearing Miocene formation is known to occur. On the eastern margin of the mountain, various sediments belonging to the Karpatian can be traced. Within the oldest Karpatian deposits the sand and sandstone beds contain featureless, smaller Foraminifera, mainly *Ammonia beccarii* (boreholes Diósjenő 6, Vác 1, and outcrop at Zsibak-árok, Egyházasgerge Formation).

Within the Karpatian, the sediments of schlier facies are most important, occurring both in basin centre and in basin margin deposits (boreholes Hont 1: 114.0—3.8 m, Hont 2: 275.8—17.0 m, Drégelypalánk 2: 295.0—188.0 m, Nagyoroszi 1: 120.0—14.3 m, Diósjenő 3: 35.0—17.6 m and Vác 1: 139.0—28.5 m). Foraminifera characteristic of this period are *Uvigerina graciliformis* PAPP—TURNOVSKY, *Dyocibicides biserialis* CUSHMAN—VALENTINE, *Cibicides tenellus* (REUSS), *Cibicidoides ungerianus* (D'ORBIGNY), *Lenticulina inornata* (D'ORBIGNY), *Globigerina concinna* REUSS and *G. quinqueloba* NATLAND.

In addition to Foraminifera, the fauna is rich in sponge spicules and skeletons as well. The youngest beds of the schlier sequence were cut by boreholes Diósjenő 6 (16.0—0.0 m) and Diósjenő 8 (46.0—18.0 m). Here, in addition to Foraminifera, remains of diatoms are frequently found (Garáb Formation).

The littoral facies of the schlier sequence contains a poorer foraminiferal fauna, but many bryozoan remains can be observed (Drégelypalánk 2: 188.0—90.0 m and Hont 1: 168.0—114.0 m) (Fót Formation).

The Karpatian Foraminifera of the Börzsöny Mts can be traced to have connections with the Salgótarján Basin and N Hungary, where there are more complete sequences, and the schlier beds can be readily subdivided on the basis of the fauna.

Badenian stage

Overlying the Karpatian sediments, the volcanics are assigned to the Lower Badenian already. Although the main eruption of the volcano took place in Early Badenian time, some tuffaceous material occurs already in the Karpatian (in the Hont cleft the Karpatian schlier beds alternate with tuff layers). Z. BALLA—J. CSONGRÁDI et al. (1981) argue for the absence of volcanics in the Karpatian. In our opinion, the Hont cleft section proves the contrary, no pre-Miocene volcanics being available in the Börzsöny Mts. Whereas when the fauna indicates an older age, redeposition be reckoned with, as it is the case with the borehole Kóspallag 11 having supplied redeposited Oligocene microfossils.

Lower Badenian sedimentary deposits superimposed to volcanics are the freshwater beds with fish remains and diatoms (boreholes Vá-

mosmikola 1: 40.0—25.0 m, Vámosmikola 2: 60.0—26.0 m, Szokolya 3: 68.0—47.0 m and Szokolya 11: 37.6—12.0 m). Freshwater formations grade into brackish-water ones with Foraminifera. The fauna here is not rich in species yet, but some samples abound with individuals of *Ammonia beccarii* (LINNE), *Florilus boueanus* (D'ORBIGNY) and *Bulimina elongata* (D'ORBIGNY). Even in this interval, there are lots of fish remains (boreholes Szokolya 3: 47.0—33.0 m, Szokolya 11: 37.6—12.0 m, Vámosmikola 1: 25.0—12.0 m). The brackish-water beds are overlain by marine deposits rich in Foraminifera, that can be studied in littoral, basin-margin and basin-centre facies alike.

B a s i n - c e n t r e d e p o s i t s were exposed by boreholes near Letkés, Perőcsény and Nagybörzsöny. The very rich foraminiferal assemblage is assigned to the Lagenida-bearing benthonic or the corresponding Orbolina—Globigerina plankton. The fauna indicates a deeper sea, with immediate connection with the open sea.

Characteristic forms of the assemblage are *Lenticulina echinata* (D'ORBIGNY), *Planularia helena* (KARRER), *P. grundensis* (KARRER), *P. moravica* (KARRER), *P. auris* (DEFRANCE), *Marginulina cristellaroidea* CŽÁZEK, *Lingulina costata* D'ORBIGNY, *Vaginulina legumen* (LINNE), *Frondicularia annularis* D'ORBIGNY, *Globigerinoides triloba* (REUSS), *Orbulina suturalis* BRONNIMAN, *O. universa* D'ORBIGNY, *Globoquadrina dehiscens* CHAPMAN—PARR—COLLINS, *G. altispira altispira* CUSHMAN—JARVIS, *G. conglomerata* (SCHWAGER), *Globorotalia scitula* (BRADY) and *G. mayeri* CUSHMAN—ELLISOR.

L i t t o r a l f o r m a t i o n s were crossed by boreholes Szokolya 2, 3, Letkés 3, Nagymaros 3, Nagybörzsöny 8 and 12. The faunal assemblage consists of large specimens in a very good state of preservation. The specimens often reach 5 to 25 mm size, particularly so among the representatives of Frondicularia, Nodosaria, Heterostegina. We could observe similar features in the course of investigations of the Mecsek Mts (borehole Tekeres 1, outcrop behind the Komló Public Baths, Kishajmás railway cutting). The explanation for this phenomenon may be sought in the change in temperature resulting from the andesitic volcanism. Benthonic forms are represented in the assemblage in a great number of species and individuals, but planktonic species are also important. Changes in the fauna within the sequence are due to lithological changes. These sediments must have been deposited in warm shallow waters, as proved by the varied and ornamented fossil assemblage.

Species characteristic of the foraminiferal fauna are: *Quinqueloculina zigzag* D'ORBIGNY, *Palmula appendicifera* NYÍRÖ, *Heterostegina costata* D'ORBIGNY, *Peneroplis planatus* (FICHTEL—MOLL), *Borelis melo* (FICHTEL—MOLL), *B. rotella* (D'ORBIGNY), *B. hauerii* (D'ORBIGNY), *Bolivina plicatella* CUSHMAN, *Uvigerina pygmaea* PAPP—TURNOVSKY, *U. macrocarinata* PAPP—TURNOVSKY, *Lamarcchina erinacea* (KARRER), *Rotalia papillosa* BRADY, *Baggina gibba* D'ORBIGNY, *Asterigerina staeschei* TEN DAM—REINHOLD, *Amphistegina hauerina* D'ORBIGNY, *Cymbalopora poeyi* D'ORBIGNY, *Ehrenbergina serrata* REUSS, *Globigerinoides triloba* (REUSS), *Gypsina globula* (REUSS), and *Planorbulina mediterranensis* D'ORBIGNY (Baden Clay Formation).

The formations of the littoral sequence are known from boreholes Ipolydamásd 1, Szob 2 and outcrops around Szob—Márianosztra and Szokolya. Thick-walled Amphistegina, Heterostegina and Miliolina dominate the assemblage, though in thin sections some planktonic species can also be identified, having probably been carried ashore by the currents. Apart from the Foraminifera, the fauna consists of remains of various Mollusca, Echinodermata, corals, Lithothamnium and Bryozoa. This typical littoral unit con-

tains layers of coarse pebble-conglomerate, fine-grained sandstone, sandy marl, coarse-to medium-grained calcareous sandstone, and loose and compact limestone. Sandy marls and the limestone as well as sandstones are typical littoral formations, while conglomerates are tidal deposits (Pécszabolcs Formations).

As shown by our studies, the Börzsöny area must have formed a part of a basin that extended west-northwestwards well into what is now the Slovakian territory. There, as a result of the more intensive subsidence, marine sedimentation continued even in Late Badenian time, while at the same time the Börzsöny area was an emerged mainland already.

We have tried to fit our results into the international zonation based on planktonic Foraminifera and nannoplankton (Table 11), by considering the regional stage division of the Mediterranean and the Central and Eastern Paratethys. For the Badenian, the threefold division adapted at the Paratethys Conference in Kraków, 1974 has been included in the tabulation.

DESCRIPTION OF FORAMINIFERAL SPECIES

The following description comprises species not described in our earlier studies, being of importance for stratigraphy, or unknown from Hungary as yet.

F o r a m i n i f e r i d a EICHWALD, 1830

Hormosinidae HAECKEL, 1894

Reophax MONTFORT, 1808

Reophax ampullacea BRADY

Pl. I, Figs 9, 10—12, Pl. LXXXIII, Fig. 7

(For the synonym list, see the Hungarian text.)

Remarks: The species is completely identical with the specimen demonstrated by BRADY. The last chamber ends in a small neck. The wall of the test is finely arenaceous.

Occurrence: Common in Kiscellian, Lower Badenian formations, always in a low number of specimens. Hitherto unknown in these beds.

Reophax compressa (GOES)

Pl. LXXXIII, Fig. 6

(For the synonym list, see the Hungarian text.)

Remarks: Our specimen completely agrees with the original description. The wall of the test is finely arenaceous with small plates of mica and sand (grains). Hitherto unknown in the Badenian of Hungary.

Occurrence: Several specimens in the near-shore sediments of the Lower Badenian.

Reophax nothi MACFADYEN

Pl. LXXXIII, Fig. 8

(For the synonym list, see the Hungarian text.)

Remarks: Our specimens agree with the forms described. The test is coarsely arenaceous with large sand grains. Unknown from the Hungarian material as yet.

Occurrence: Observed in near-shore Lower Badenian argillaceous marl.

Textulariidae EHRENBURG, 1838*Vulvulina* D'ORBIGNY, 1826*Vulvulina pennatula* (BATSCH)

Pl. LXXXIII, Figs 1–3, Pl. CIV, Fig. 6

(For the synonym list, see the Hungarian text.)

Remarks: Found in several specimens and varieties in the samples examined. Hitherto unknown in the Hungarian Miocene.

Occurrence: Rarely occurring in Lower Badenian near-shore sediments.

Nubeculariidae JONES, 1875*Spiroloculina* D'ORBIGNY, 1826*Spiroloculina canaliculata* D'ORBIGNY

Pl. VII, Figs 16, 18, Pl. XXIII, Figs 1–3, Pl. LXXXVII, Fig. 6

(For the synonym list, see the Hungarian text.)

Remarks: Found in several specimens in the samples examined, completely identical with the original description.

Occurrence: Frequent in Kiscellian, Lower Badenian sediments.

Spiroloculina crassa SEGUENZA

(For the synonym list, see the Hungarian text.)

Description: Test rounded, central part impressed. Old chambers surrounding the small globular initial chamber are quite narrow, and become gradually wider, with the youngest chamber becoming the widest. Margin rounded, partition of the chambers compressed. Wall calcareous, smooth and shiny. The aperture is a round hole that can be observed on the last chamber.

Remarks: Found in two specimens in the sample examined. Characteristic of the Badenian, known from the W Mecsek as well.

Spiroloculina striatula TEN DAM et REINHOLD

Pl. LXXXVII, Fig. 5, Pl. CVI, Figs 1–2

(For the synonym list, see the Hungarian text.)

Description: Test rounded, central part impressed. Juvenile chambers surrounding the older part are wide. Chambers slightly inflated, margin sharp. Wall calcareous with dense and tiny notches. The aperture is situated on the slightly elongated neck in the last chamber.

Remarks: Found in some specimens in the Lower Badenian argillaceous marl. Known from the W Mecsek as well.

*Miliolidae EHRENBURG, 1838**Quinqueloculina* D'ORBIGNY, 1826*Quinqueloculina agglutinans* D'ORBIGNY

(For the synonym list, see the Hungarian text.)

Remarks: This species was found in several specimens in the sample examined, but all of them were damaged.

Occurrence: Found in Lower Badenian littoral and basin-centre deposits. Known from the W Mecsek as well.

Quinqueloculina buchiana D'ORBIGNY

Pl. LXXXI, Fig. 1, Pl. LXXXVI, Fig. 3

(For the synonym list, see the Hungarian text.)

Remarks: Found in several specimens in the sample examined, characterized by a strong edge on the margins and in the central chamber. Completely identical with the form described.

Occurrence: Frequent in Lower Badenian formations. Known from bore-hole Tekeres 1 as well (W Mecsek).

Quinqueloculina zigzag D'ORBIGNY

Pl. LXXXIV, Fig. 12

(For the synonym list, see the Hungarian text.)

Remarks: Our specimen is identical with the figure of the original description. Very characteristic of the Badenian.

Occurrence: Rare in Lower Badenian littoral and near-shore facies.

Pyrgo DEFRENCE, 1824*Pyrgo anodonta* (KARRER)

(For the synonym list, see the Hungarian text.)

Description: Test rounded, with inflated chambers. The second chamber forms a narrow rim around the old one. The wall is calcareous, smooth and imperforate. The aperture is characteristic with two notches inclined at the tips, no teeth.

Remarks: Two specimens, completely identical with the original description, were found in the samples of the Badenian argillaceous marl.

Nodosariidae EHRENBURG, 1838***Nodosaria* LAMARCK, 1812*****Nodosaria bacilloides* HANTKEN**

Pl. XXXV, Fig. 4, Pl. XCIX, Fig. 13

(For the synonym list, see the Hungarian text.)

Remarks: Our specimen is completely identical with the three-chambered specimen described by HANTKEN. In the sample examined, however, we came across two-chambered variants as well, and CUVILLIER and SZAKALL demonstrated a four-chambered variant in their work. Occurring in several specimens in Lower Badenian formations.

Occurrence: Found in Kiscellian, Lower Badenian near-shore and basin-center deposits. Known from the W Mecsek as well.

***Nodosaria pentacostata* COSTA**

(For the synonym list, see the Hungarian text.)

Remarks: Our specimen is not complete, still it can be identified with the species described and demonstrated by G. COSTA and G. DIECI. A few incomplete specimens were found in the material examined.

Occurrence: Lower Badenian near-shore facies.

***Nodosaria reussiana* NEUGEBOREN**

Pl. XCIX, Fig. 9

(For the synonym list, see the Hungarian text.)

Description: The test consists of 5 chambers situated in one row. The initial part ends in a small prickle. The chambers show a gradual growth in size, the largest chamber almost globular, being the youngest one. The wall is calcareous and finely perforate. Densely ornamented with longitudinal ribs, consisting of small pearls. The aperture is a small hole situated on the elongated neck in the last chamber. There are 4—5 prominent ribs on the neck.

Remarks: Our specimen is completely identical with the one described and demonstrated by NEUGEBOREN from Lapugy. Found in several specimens from the samples examined.

Occurrence: Lower Badenian.

***Lagenonodosaria scalaris* var. *sagamiensis* (ASANO)**

Pl. XCIX, Fig. 15, Pl. CXI, Figs 1—5, Pl. CXII, Figs 1—4

(For the synonym list, see the Hungarian text.)

Remarks: Formed of three globular chambers of an abrupt growth, the test is different from *N. scalaris*, owing to the tiny pearl-like ornamentation of

the last chamber. Found in several specimens in the Lower Badenian argillaceous marl. Specimens with 4 or 5 chambers are also known.

Occurrence: Lower Badenian near-shore and basin-centre facies.

Dentalina D'ORBIGNY, 1826

Dentalina antennula D'ORBIGNY

(For the synonym list, see the Hungarian text.)

Description: The test consists of four subsequent chambers bended in an arch. Initial chamber nearly globular, terminating in the bottom in a small prickle. Younger chambers resembling a drop, growing gradually. In the second chamber there are thin longitudinal ribs, the wall is calcareous, finely perforate. The aperture is a small hole situated at the slightly elongated end of the last chamber.

Remarks: Our specimen is identical with the species described and figured by D'ORBIGNY, the only difference is that the ribs of the second chamber are somewhat longer.

Occurrence: Lower Badenian argillaceous marl.

Dentalina vertebralis (BATSCH)

Pl. XCIX, Fig. 5

(For the synonym list, see the Hungarian text.)

Description: The test is elongated, slightly bended in arch, its 16—18 chambers are gradually increasing. Suturæ are marked. The wall is calcareous, finely perforated, densely ornamented with longitudinal ribs. The aperture is a small hole, situated on the elongated neck of the last chamber.

Remarks: Several specimens identical with the original description were found in the sample examined.

Occurrence: Lower Badenian argillaceous marl.

Frondicularia DEFRAANCE, 1824

Frondicularia annularis D'ORBIGNY

Pl. XCVII, Fig. 1—3

(For the synonym list, see the Hungarian text.)

Remarks: Frequent in the Hungarian Lower Badenian formations. Completely identical with the species described. Some specimens were found in the W Mecsek as well.

Occurrence: Lower Badenian argillaceous marl,

Frondicularia badenensis KARRER

Pl. XCVII, Fig. 11

(For the synonym list, see the Hungarian text.)

Description: The test is leaf-shaped, narrowing at both ends. The wall is calcareous, finely perforated. The whole surface is densely and finely ribbed. The aperture is radial, situated at the narrowing end of the last chamber.

Remarks: Several specimens completely identical with the species described were found in the sample.

Occurrence: Lower Badenian argillaceous marl.

Frondicularia laevigata KARRER

Pl. XCVII, Figs 6, 8, Pl. CIV, Fig. 8, Pl. CXLI, Fig. 4

(For the synonym list, see the Hungarian text.)

Description: The test is wedge-shaped, rounded at the lower end. The termination of the chambers with the shape of an reversed V is blunt. In the initial and subsequent chambers longitudinal notches can be observed. Younger chambers are smooth, with no ornamentation. Our specimen is incomplete, thus the aperture could not be observed.

Remarks: Several specimens completely identical with the figure published by KARRER are known in the sample.

Occurrence: Lower Badenian argillaceous marl.

Frondicularia reussi KARRER

Pl. XCVII, Fig. 9

(For the synonym list, see the Hungarian text.)

Description: The specimen examined is fragmented, thus only the old chambers of the test were observable. The form of the test is ellipsoidal. The initial chamber is followed by arched chambers in the shape of an reversed V. The wall is calcareous, ornamented throughout its surface with closely spaced ribs.

Remarks: In the sample examined, an incomplete specimen showing features identical with the one figured by F. KARRER was observed.

Occurrence: In Lower Badenian near-shore and basin-centre sediments. Known from the W Mecsek as well.

Lagenaria WALKER et JACOB, 1798*Lagenaria apiculata* (REUSS)

(For the synonym list, see the Hungarian text.)

Remarks: The species was found in several specimens in the Badenian formations. On the scanning electron micrographs the cap-like, unornamented ending of the elongated neck is clearly visible.

Occurrence: In Lower Badenian near-shore and basin-centre sequences.

Lenticulina LAMARCK, 1804*Lenticulina arcuata* (KARRER)

Pl. XCV, Fig 3

(For the synonym list, see the Hungarian text.)

Description: The test is rounded. Chambers wide and inflated, with a narrow rim on the edge. Ornamented with some pearls in the umbilical area. The wall is calcareous very finely perforated. The aperture is radial.

Remarks: Known from the Badenian clay of the Vienna Basin, the species is represented by one specimen in the sample examined.

Lenticulina costata (FICHTEL et MOLL)

(For the synonym list, see the Hungarian text.)

Remarks: The specimen found in our samples is similar to the species described by K. ASANO. The test consists of four chambers gradually growing ornamented with some prominent ribs.

Occurrence: Several specimens were found in the Hungarian Lower Badenian formations.

Lenticulina crassa (d'ORBIGNY)

Pl. XCVI, Fig. 6, Pl. CIII, Fig. 5

(For the synonym list, see the Hungarian text.)

Description: The test consists of four chambers, slightly inflated, surrounded by a wide, transparent rim. The wall is calcareous, finely perforated. The radial aperture can be observed in the last chamber.

Remarks: Completely identical with the species described. Found in one specimen only in the sample examined.

Occurrence: In Kiscellian and Lower Badenian basin-centre and near-shore facies. Occurring in the W Mecsek as well.

Lenticulina dubia (SEGUENZA)

Pl. XCV, Fig. 4, Pl. XCVI, Fig. 5

(For the synonym list, see the Hungarian text.)

Remarks: Several specimens of this species were observed in the sample examined. The wide, transparent rim surrounding the chambers is injured in most cases. Completely identical with the form figured by G. SEGUENZA.

Occurrence: Lower Badenian,

Lenticulina hoernesii (REUSS)

Pl. XCI, Fig. 10

(For the synonym list, see the Hungarian text.)

Description: The test is elongated. Older chambers narrow and short, the young ones wider and longer. The last chamber is the largest. The wall is not ornamented. The radial aperture is situated on the last chamber.

Remarks: One specimen of the species is known from Lower Badenian clays. It is different from the figure of A. E. REUSS, but it can be identified with the representative of the species published by NEUGEBOREN from Lapugy.

Occurrence: Occurring sporadically in Lower Badenian near-shore and basin-centre sequences.

Lenticulina paulae (KARRER)

Pl. XCIV, Fig. 10

(For the synonym list, see the Hungarian text.)

Description: The initial chamber of the test is globular, ornamented with a few salient longitudinal ribs, terminating in a moderately long prickle. The globular chamber is surrounded by flat younger chambers of different shape. The wall is calcareous, and finely perforated. Aperture radial, situated at the slightly elongated end of the last chamber.

Remarks: One specimen found in the sample. Completely identical with the species described and figured by F. KARRER. Characteristic form of the Badenian.

Lenticulina septentrionalis (CUSHMAN)

(For the synonym list, see the Hungarian text.)

Remarks: The species is known from Lower Badenian argillaceous marl, being completely identical with the form figured by J. CUSHMAN and G. COLOM, respectively.

Occurrence: Frequent in Lower Badenian sediments, it is also known from the Eggenburgian formations of Hungary where the prerequisites for development of a Lagenida faunal assemblage were available.

Lenticulina similis (D'ORBIGNY)

Pl. XCIV, Fig. 4, Pl. XCVI, Fig. 3

(For the synonym list, see the Hungarian text.)

Remarks: Our specimen is completely identical with the species of A. D'ORBIGNY and G. DIECI. Known from Lower Badenian formations, it is characteristic of formations of this age.

Occurrence: Lower Badenian.

Marginulina D'ORBIGNY, 1826*Marginulina basispinosa* CUSHMAN et RENZ

(For the synonym list, see the Hungarian text.)

Description: The test is elongated, the older chambers are spreading flat, while the young ones are cylindrical. The wall is calcareous, with pearls on the suturae of the old chambers, ornamented with ribs on the young cylindrical chambers. The aperture is round, situated on a small neck.

Remarks: One specimen identifiable with the species described by J. CUSHMAN and A. RENZ was found in the material examined.

Occurrence: Lower Badenian.

Marginulina dingdeni TEN DAM et REINHOLD

Pl. CIII, Fig. 4

(For the synonym list, see the Hungarian text.)

Remarks: Two specimens completely identical with the species described by the authors were found in the sample examined.

Occurrence: In Lower Badenian argillaceous marl.

Marginulina echinata NEUGEBOREN

Pl. XCIX, Fig. 6

(For the synonym list, see the Hungarian text.)

Description: The test is elongated, slightly bent. The older chambers are flat, spreading, while the two youngest chambers are globular. The wall is calcareous, finely perforated, densely ornamented with prickles. The aperture is round, situated on a small neck.

Remarks: Completely identical with the species described. Several specimens occur in the sample examined.

Occurrence: In Lower Badenian deposits of basin-centre facies.

Marginulina hispidocostata n. sp.

Pl. CVIII, Fig. 1-4

Holotype: One specimen in the collection of the Hungarian Geological Institute, Micro-paleontological Collection.

Dimensions of the holotype: Length 1.3 mm, width 0.34 mm.

Locus typicus: Borehole Szokolya 2, 26.20-27.20 m.

Stratum typicum: Lower Badenian substage.

Derivatio nominis: The name of the species denotes the prickles and ribs ornamenting the surface of the test.

Diagnosis: Elongated form, the old chambers are flat and ornamented with prickles. The youngest chamber is inflated carrying a few longitudinal ribs.

Description: The test is elongated, slightly bent. The arrangement of the chambers is uniserial, the chambers are nearly equal in size. The suturae are

irregular and impressed. The old chambers are flat, ornamented with prickles. The youngest chamber is inflated, almost globular, with some prominent longitudinal ribs. The radial aperture is situated on the elongated end of the last chamber. The wall of the test is calcareous and finely perforated on the whole surface.

Differential diagnosis: Our specimen is similar to the species *Marginulina nana* COSTA, but the older chambers of the latter are flatter, ornamented with fewer prickles, containing no longitudinal ribs on the last globular chamber.

Marginulina nodosa SEGUENZA

(For the synonym list, see the Hungarian text.)

Description: The test is elongated, slightly bent. The chambers on the edge of the test are inflated, and become narrow at the suturae. The young chambers are larger than the old ones. The initial chamber is nearly globular. The wall is calcareous and finely perforated, with no ornamentation. The aperture is radial, situated on the youngest chamber.

Remarks: One specimen completely identical with the species described, was found in the sample examined.

Occurrence: Lower Badenian near-shore facies.

Marginulina pustulosa NEUGEBOREN

Pl. XC VIII, Fig. 9

(For the synonym list, see the Hungarian text.)

Description: The test is elongated, slightly bent. The round initial chamber is followed by flat, spreading chambers. The last chamber is semiglobular, terminating in a little neck on its margin. The wall is calcareous, slightly transparent, finely perforated, ornamented with prickles. The radial aperture is situated on the elongated neck.

Remarks: Few specimens completely identical with the form figured by J. L. NEUGEBOREN were found in the material examined.

Occurrence: Lower Badenian argillaceous marl.

Marginulina senni (CUSHMAN et RENZ)

(For the synonym list, see the Hungarian text.)

Description: The test is small, slightly bent, having a very narrow rim. The chambers are flat and spreading. The wall is calcareous, ornamented with pearls on the partitions of the chambers. The aperture is round, situated on a small neck.

Remarks: One specimen was found in the material examined.

Occurrence: Lower Badenian basin-centre sequences.

Palmula LEA, 1833*Palmula appendicifera* NYÍRŐ

Pl. XCVII, Fig. 5

(For the synonym list, see the Hungarian text.)

Remarks: Our specimen is slightly injured. Completely identical with the species described, known from the Badenian argillaceous marl of Szokolya.

Occurrence: Lower Badenian argillaceous marl.

Planularia DEFRENCE, 1824*Planularia auris* (DEFRENCE)

Pl. XCIII, Figs 6–10

(For the synonym list, see the Hungarian text.)

Remarks: Spotted first in the Börzsöny Mountains in the Hungarian Miocene, the species was later identified in the borehole Tengelic 2 as well. It is a very spectacular, characteristic form represented by a lot of variants, but identical in the main features. Our specimens are completely identical with the forms described from the Romanian Miocene.

Occurrence: Lower Badenian basin-centre and near-shore facies.

Planularia grundensis (KARRER)

Pl. XCVI, Fig. 4

(For the synonym list, see the Hungarian text.)

Remarks: Our specimen resembles the species described by A. TEN DAM and TH. REINHOLD.

Occurrence: Several specimens in Lower Badenian argillaceous marl. Known from the W Mecsek as well.

Planularia helena (KARRER)

Pl. XCIV, Fig. 6, Pl. XCVI, Fig. 12

(For the synonym list, see the Hungarian text.)

Remarks: Several specimens occurred in the Lower Badenian material examined. The umbilical part is ornamented densely with pearls. Completely identical with the figures of F. KARRER and J. SOUAYA.

Occurrence: Lower Badenian basin-centre and near-shore facies.

Planularia moravica (KARRER)

Pl. XCV, Fig. 7

(For the synonym list, see the Hungarian text.)

Description: The test is planispiral. The chambers are slightly inflated. A narrow, even rim surrounds the test on the edge. The wall is calcareous and finely perforated. Our specimen is incomplete thus the aperture was not observable.

Remarks: There were two fragmented specimens in the material examined.

Occurrence: Lower Badenian shelf and basin-centre deposits.

Planularia reniformis (d'ORBIGNY)

(For the synonym list, see the Hungarian text.)

Remarks: One specimen was found in the material examined. Similar to the species figured by A. d'ORBIGNY, it is more elongated.

Occurrence: In Lower Badenian argillaceous marl. Known from the W Mecsek as well.

Saracenaria DEFRENCE, 1824*Saracenaria latifrons* (BRADY)

Pl. XCIX, Fig. 13, Pl. CLXI, Fig. 1

(For the synonym list, see the Hungarian text.)

Remarks: One specimen completely identical with the species described by H. BRADY and K. ASANO is known from the material examined.

Occurrence: Lower Badenian argillaceous marl.

Lingulina d'ORBIGNY, 1826*Lingulina costata* d'ORBIGNY

Pl. LXXXVIII, Fig. 12

(For the synonym list, see the Hungarian text.)

Description: The test is oval, its upper part is wide, the lower part is getting gradually narrow. Chambers inflated and of gradual growth. The old chambers are ornamented with sharp prominent, longitudinal ribs. The last, youngest chamber is smooth. The wall is calcareous, shiny, finely perforated. The aperture is slot-like, long, situated on the upper rim of the last chamber.

Remarks: Characteristic of the Lower Badenian sediments. In the material examined, several variants of the species, from young to mature specimens were found.

Occurrence: Lower Badenian argillaceous marl.

Glandulinidae REUSS, 1860*Oolina* D'ORBIGNY, 1839*Oolina bidens* (CUSHMAN)

(For the synonym list, see the Hungarian text.)

Description: The test is oval, slightly flattened. At the lower end, there are two short prickles situated near the centre line. The wall is calcareous, smooth, without ornamentation. The aperture is a long notch at the centre of the upper end of the test.

Remarks: Our specimen is identical with the species of J. CUSHMAN. In the material examined, one specimen was found.

Occurrence: Lower Badenian argillaceous marl.

Oolina marginatoperforata (SEGUENZA)

Pl. CIII, Figs 13—14

(For the synonym list, see the Hungarian text.)

Remarks: Identified for the first time in Hungarian material, the species is completely identical with the figure illustrating the original description. The central part of the test is perforated with large holes. The test is surrounded by a sharp rim.

Occurrence: Several specimens found in Karpatian and Lower Badenian sediments.

Oolina radiatomarginata (PARKER et JONES)

Pl. XCIII, Fig. 3

(For the synonym list, see the Hungarian text.)

Remarks: The species was represented in the material examined by one specimen only. A very characteristic feature of this form is the radial ornamentation issuing from the centre of the test.

Occurrence: Lower Badenian sequence of basin-centre facies.

Bolivinitidae CUSHMAN, 1927*Bolivina* D'ORBIGNY, 1839*Bolivina alata* (SEGUENZA)

Pl. CXXXII, Figs 1—3, Pl. CXXXIII, Figs 1—3

(For the synonym list, see the Hungarian text.)

Remarks: Identified for the first time in the Hungarian material, it is a very aesthetic form, with prickles at the end of the chambers. The surface of the chambers is perforated with large holes, except for the prickles at the margin of the chambers.

Occurrence: Karpatian and Lower Badenian basin-facies sequence.

Bolivina antiqua D'ORBIGNY

Pl. XV, Fig. 3, Pl. XL, Figs 4—5, Pl. CXXXVI, Figs 3—4

(For the synonym list, see the Hungarian text.)

Remarks: This species was first identified, from the Transdanubian Miocene basins, by R. NYÍRŐ. Since then, its remains were found in almost every Badenian deposit. The wall of the test is smooth, very finely perforated.

Occurrence: A small number of specimens found in Kiscellian and Badenian sediments.

Boliviana arta MACFADYEN

Pl. LXXIX, Fig. 1

(For the synonym list, see the Hungarian text.)

Description: The test is elongated, widening in the upper part, rounded in the lower one. Consists of several chambers of a progressive growth. The suturae are marked and straight or very slightly bent, except for the upper corner of the chambers, where they turn around. The wall is calcareous, thin, finely perforated. The form of the aperture is similar to a drop, situated on the inner margin of the last chamber.

Remarks: Our specimens are completely identical with the species described. Characteristic form of the Lower Badenian.

Occurrence: Lower Badenian argillaceous marl.

Bolivina hebes MACFADYEN

Pl. CXXXVII, Figs 1—3

(For the synonym list, see the Hungarian text.)

Remarks: The species is frequent in Lower Badenian deposits.

Occurrence: Lower Badenian basin-centre and near-shore sequences.

Eouvigerinidae CUSHMAN, 1927*Stilostomella* GUPPY 1894*Stilostomella dimorpha* (JONES et PARKER) var. *ornata* (SCHUBERT)

(For the synonym list, see the Hungarian text.)

Description: The test consists of 19 superimposed cylindrical chambers of a progressive growth. The initial chamber is terminating in a small prickle. The youngest chamber is rounded. The chambers are densely denticulated by the suturae. The aperture is a round hole in the centre of the last chamber.

Remarks: The specimen described by R. SCHUBERT from the Wales schlier is not complete, being most likely identical with our species.

Occurrence: Lower Badenian near-shore sequences.

Buliminidae JONES, 1875
Bulimina D'ORBIGNY, 1826

Bulimina dingdenensis BATJES

Pl. CXXVIII, Figs 1–4

(For the synonym list, see the Hungarian text.)

Remarks: The first occurrence of the species in Hungary was observed in the Miocene formations of Letkés. The form is very characteristic, with pretty ornamentation. Completely identical with the form described.

Occurrence: Karpatian and Lower Badenian basin-centre sediments.

Uvigerinidae HAECKEL, 1894
Uvigerina D'ORBIGNY, 1826

Uvigerina steyri steyri PAPP

Pl. XVI, Figs 10–12, 14–17, Pl. LVIII, Figs 1–6

(For the synonym list, see the Hungarian text.)

Remarks: This species, known in many varieties, was represented in our material by several specimens. The bulk of the specimens described are completely identical with the form described from the Egerian of Austria. The species was identified first in the borehole Drégelypalánk 2 in Hungary, in the Egerian sediments.

Occurrence: Egerian schlier sequence.

Caucasinidae BYKOVA, 1959
Coryphostoma LOEBLICH—TAPPAN, 1962

Coryphostoma sinuosa (CUSHMAN)

Pl. CXXXIX, Figs 1–4

(For the synonym list, see the Hungarian text.)

Remarks: Very characteristic of the Lower Badenian sediments, it is represented by a lot of specimens in the material examined. Characteristic feature of the species is the regular reticulate ornamentation.

Occurrence: Lower Badenian argillaceous marl.

Virgulinella CUSHMAN, 1932*Virgulinella miocenica* (CUSHMAN et PONTON)

Pl. CXXX, Figs. 1–4

(For the synonym list, see the Hungarian text.)

Remarks: Very characteristic of the Miocene. Unfortunately, the test is very fragile, therefore intact specimens are very seldom found. The arched and denticulated ornamentation near the suturae is very characteristic.

Occurrence: Karpatian and Lower Badenian basin-centre sequences.

Loxostomidae LOEBLICH et TAPPAN, 1962*Loxostomum* EHRENBURG, 1854*Loxostomum digitale* (D'ORBIGNY)

Pl. CXLI, Figs 1–3

(For the synonym list, see the Hungarian text.)

Remarks: This species is very frequent in the Miocene sediments. There is no reason to assign it to the genus *Coryphostoma*, because there is no reticulate ornamentation on its surface.

Occurrence: Lower Badenian basin-centre and near-shore deposits.

Loxostomum limbatum (BRADY)

Pl. CXL, Figs 1–3

(For the synonym list, see the Hungarian text.)

Remarks: The initial biserial chambers are later followed by uniserial ones. Around the aperture situated on the last chamber, the perforations are arranged in rows, producing an effect of stripes.

Occurrence: Lower Badenian near-shore sequences.

Loxostomum striatum n. sp.

Pl. LXXXIV, Fig. 10, Pl. CXLII, Figs 1–3, Pl. CXLIII, Figs 1–2

Holotype: One specimen in the collection of the Hungarian Geological Institute, Micro-paleontological Collection.

Dimensions of the holotype: Length 0.6 mm, width 0.2 mm.

Locus typicus: Borehole Szokolya 2, 81.50–82.30 m.

Stratum typicum: Lower Badenian substage.

Derivatio nominis: For the ribs running over the surface of the test.

Diagnosis: Elongated form, the initial biserial chambers are followed by uniserial young ones. The edge is rounded, ornamented by ribs running over the whole length of the test.

Description: The test is elongated, biserial in the early stage of development, later becoming uniserial. The edges are rounded. The chambers are

large and inflated, the wall is calcareous, finely perforated, ornamented with longitudinal prominent ribs running over the whole surface. The aperture is ellipsoidal, surrounded by a narrow stripe of imperforate surface, ornamented with tiny pearls instead. Holes occur on the surface of the test at random and in one row between the ribs.

Differential diagnosis: Our specimen is similar to the *Loxostomum hungarica* VADÁSZ species characteristic of the Miocene, but in this latter species only the older, biserial parts are ornamented with ribs.

Nonionidae SCHULTZE, 1854

Nonion MONTFORT, 1808

Nonion inflatum (SCHUBERT)

Pl. LXXXVIII, Fig. 7

(For the synonym list, see the Hungarian text.)

Remarks: A host of specimens completely identical with CUSHMAN's figure were found in the material. Characteristic form of the Central European Miocene.

Occurrence: Frequent in Lower Badenian near-shore and basin-centre deposits alike.

Ceratobuliminidae CUSHMAN, 1927

Lamarckina BERTHELIN, 1881

Lamarckina erinacea (KARRER)

Pl. XCI, Fig 9

(For the synonym list, see the Hungarian text.)

Remarks: Our specimen was found in near-shore sediments at Szokolya. The coil side is ornamented densely with tiny pearls, while the umbilical side is absolutely smooth and glassy. Completely identical with the original description.

Occurrence: Lower Badenian near-shore sequences.

A meghatározott fajok betűrendes mutatója

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<i>Cribrononion falunicum</i> (ALLIX)	XVII.
<i>Cribrononion hiltermanni</i> (HAGN)	LXIX.
<i>Cribrononion minutum</i> (REUSS)	XVII.
<i>Cribrononion subnodosum</i> (ROEMER)	LXX.
<i>Cribrononion</i> sp.	XVII.
<i>Cyclammina acutidorsata</i> (HANTKEN)	IV.
<i>Cyclammina cancellata</i> BRADY	XCII.
<i>Cyclammina evolvinatus</i> SMITH	XCII.
<i>Cyclammina placenta</i> (REUSS)	
<i>Cyclammina rotundidorsata</i> (HANTKEN)	XCII.
<i>Cyclammina tani</i> ISHIZAKI	XCII.
<i>Cyclammina vulchoviensis</i> VENGLINSKIJ	
<i>Cyclammina</i> sp.	IV.
<i>Cyclogyra involvens</i> (REUSS)	
<i>Cyclogyra tasmanica</i> PARR	LXXXIV.
<i>Cyclogyra</i> sp.	
<i>Cymbalopora poeyi</i> D'ORBIGNY	LXXXIII.

<i>Dentalina acuta</i> d'ORBIGNY	X.
* <i>Dentalina antennula</i> d'ORBIGNY	CIII.
<i>Dentalina baggi</i> GALLOWAY — WISSLER	XI.
<i>Dentalina bifurcata</i> d'ORBIGNY	XI.
<i>Dentalina communis</i> d'ORBIGNY	XI.
<i>Dentalina contorta</i> (HANTKEN)	XI.
<i>Dentalina debilis</i> (HANTKEN)	XI.
<i>Dentalina filiformis</i> (d'ORBIGNY)	X., XI.
<i>Dentalina aff. filiformis</i> (d'ORBIGNY)	X.
<i>Dentalina gigantea</i> HANTKEN	CIV.
<i>Dentalina mucronata</i> NEUGEBOREN	XCIX.
<i>Dentalina punctata</i> d'ORBIGNY	XI.
<i>Dentalina pungens</i> REUSS	XI.
<i>Dentalina vásárhelyii</i> HANTKEN	XCIX.
* <i>Dentalina vertebralis</i> (BATSCH)	X.
<i>Dentalina</i> sp.	XCIX., CXV.
<i>Dimorphina variabilis</i> (NEUGEBOREN)	LXIII.
<i>Discorbis globularis</i> (d'ORBIGNY)	LXXXVIII.
<i>Discorbis cf. globularis</i> (d'ORBIGNY)	XC.
<i>Discorbis kerékhegyensis</i> FRANZENAU	LXII., CLII., CLIII.
<i>Discorbis obtusata</i> (d'ORBIGNY)	XV., LXXIX.
<i>Discorbis patelliformis</i> (BRADY)	CII.
<i>Discorbis valvulata</i> (d'ORBIGNY)	LXXXIV.
<i>Discorbis</i> sp.	LXVIII.
<i>Dyocibicides biserialis</i> CUSHMAN — VALENTINE	LXXXVIII.
<i>Ehrenbergina serrata</i> REUSS	XVII.
<i>Elphidium antoninum</i> (d'ORBIGNY)	XVII., LXXI.
<i>Elphidium carpaticum</i> MYATLYUK	XC.
<i>Elphidium crispum</i> (LINNE)	XVII.
<i>Elphidium fichtellianum</i> (d'ORBIGNY)	XVII.
<i>Elphidium flexuosum</i> (d'ORBIGNY)	XVII.
<i>Elphidium macellum</i> (FICHTEL — MOLL)	XVII.
<i>Elphidium striatopunctatum</i> (FICHTEL — MOLL)	XVII.
<i>Elphidium cf. ungeri</i> (REUSS)	XVII.
<i>Elphidium</i> sp.	XVII.
<i>Eponides budensis</i> (HANTKEN)	XVII.
<i>Eponides haidingerii</i> (d'ORBIGNY)	XVII.
<i>Eponides praecinctus</i> (KARRER)	XVII.
<i>Eponides tenera</i> (BRADY)	XVII.
<i>Eponides umbonatus</i> (REUSS)	XVII.
<i>Escornebovina cuvillieri</i> (POIGNANT)	XVII.
<i>Florilus boueanus</i> (d'ORBIGNY)	XCI.
<i>Florilus buxovillanus</i> (ANDREEAE)	XVII.
<i>Florilus communis</i> (d'ORBIGNY)	CXXIV.
<i>Florilus tuberculatus</i> (d'ORBIGNY)	XCVII.
* <i>Frondicularia annularis</i> d'ORBIGNY	XCVII.
* <i>Frondicularia badenensis</i> KARRER	XCVII.

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<i>Frondicularia budensis</i> HANTKEN	XI., XXV.
<i>Frondicularia bulbosa</i> CORYELL—RIVERO	XCVII.
<i>Frondicularia interrupia</i> KARRER	XCIII., XCVII.
<i>Frondicularia jarvisi</i> CUSHMAN—TODD	XCVII.
* <i>Frondicularia laevigata</i> KARRER	XCVII., CIV., CXLI.
<i>Frondicularia lapugensis</i> NEUGEBOREN	
<i>Frondicularia rariocosta</i> KARRER	XCVII., CIV.
* <i>Frondicularia reussi</i> KARRER	XCVII.
<i>Frondicularia sculpta</i> KARRER	XCVII.
<i>Frondicularia superba</i> HANTKEN	XI.
<i>Frondicularia tenuissima</i> HANTKEN	XI., XXV.
<i>Frondicularia vaderensis</i> BECH	CIV.
<i>Frondicularia vaughani</i> CUSHMAN	XI.
<i>Frondicularia</i> sp.	XV., LVI.
<i>Furstenkoina schreibersiana</i> (CŽJŽEK)	
<i>Furstenkoina</i> sp.	
<i>Gaudryina atlantica</i> CUSHMAN	LXXXIV.
<i>Gaudryina fortiuscula</i> BERMUDEZ	VII.
<i>Gaudryina interjuncta</i> CUSHMAN	LXXXIV.
<i>Gaudryina</i> sp.	
<i>Glandulina</i> sp.	
<i>Globigerina ampliapertura</i> BOLLI	CI., CIV.
<i>Globigerina angustumbilicata</i> BOLLI	CI., CLXII.
<i>Globigerina apertura</i> CUSHMAN	C., CLXI.
<i>Globigerina bulbosa</i> LE ROY	CLIX.
<i>Globigerina calida</i> PARKER	CII.
<i>Globigerina ciperoensis ciperoensis</i> BOLLI	CI., CLX.
<i>Globigerina ciperoensis ottnangensis</i> RÖGL	
<i>Globigerina concinna</i> REUSS	CI.
<i>Globigerina conglobata</i> BRADY	
<i>Globigerina decoraperta</i> TAKAYANAGI—SAITO	
<i>Globigerina diplostoma</i> REUSS	
<i>Globigerina druryi</i> AKERS	
+ <i>Globigerina foliata</i> BOLLI	LXXIX., XCI., CI., CII.
<i>Globigerina glomerata</i> REUSS	
<i>Globigerina juvenilis</i> BOLLI	
<i>Globigerina microstoma</i> CITA—P. SILVA—ROSSI	
<i>Globigerina ouachitaensis</i> ouachitaensis HOWE—WALLACE	
<i>Globigerina praebulloides praebulloides</i> BLOW	CI., CII.
<i>Globigerina quadrilatera</i> GALLOWAY—WISSLER	CI.
<i>Globigerina quinqueloba</i> NATLAND	
<i>Globigerina tetracamerata</i> BOLLI	CLXII.
<i>Globigerina trilocularis</i> D'ORBIGNY	
<i>Globigerina triloculinoides</i> PALMER	
<i>Globigerina tripartita tripartita</i> KOCH	
+ <i>Globigerina woodi woodi</i> JENKINS	
<i>Globigerina yeguaensis</i> WEINZIERL—APPLIN	

<i>Globigerina</i> sp.	LXXVIII.
+ <i>Globigerinoides bollii</i> CITA — P. SILVA	CLXIV.
<i>Globigerinoides quadrilobata</i> BANNER — BLOW	C., CI.
<i>Globigerinoides rubra</i> (D'ORBIGNY)	CLXIII.
<i>Globigerinoides sicanus</i> DI STEPHANI	CLXIII.
<i>Globigerinoides tapiesi</i> PERCONIG	C.
<i>Globigerinoides transitoria</i> BLOW	LXXIX.
+ <i>Globigerinoides triloba</i> (REUSS)	
<i>Globocassidulina globosa</i> (HANTKEN)	
<i>Globocassidulina subglobosa</i> (BRADY)	
<i>Globoquadrina altispira altispira</i> CUSHMAN — JARVIS	C.
<i>Globoquadrina altispira globosa</i> BOLLI	C.
<i>Globoquadrina conglomerata</i> (SCHWAGER)	
<i>Globoquadrina dehiscens</i> CHAPMAN — PARR — COLLINS	
<i>Globoquadrina langhiana</i> CITA — GELATI	
<i>Globorotalia acostaensis</i> BLOW	C., CII.
<i>Globorotalia bykovae minoritesta</i> PAPP — RÖGL	CLXVI.
<i>Globorotalia crassata</i> (CUSHMAN)	
<i>Globorotalia incompta</i> (CIFELLI)	CI.
+ <i>Globorotalia involuta</i> PEZZANI	LXXIX., CLXV.
<i>Globorotalia mayeri</i> CUSHMAN — ELLISOR	CI.
<i>Globorotalia obesa</i> BOLLI	
<i>Globorotalia opima nana</i> BOLLI	VIII.
<i>Globorotalia opima opima</i> BOLLI	XIV.
<i>Globorotalia scitula</i> (BRADY)	XIV., LXXXVIII.
<i>Globotextularia</i> div. sp.	XIII.
<i>Globulina amigdaloides</i> REUSS	XXXVII.
<i>Globulina gibba</i> D'ORBIGNY	LXXXVIII.
<i>Globulina granuosa</i> (EGGER)	II.
<i>Globulina münsteri</i> (REUSS)	II.
<i>Globulina punctata</i> D'ORBIGNY	
<i>Globulina tuberculata</i> D'ORBIGNY	
<i>Glomospira charoides</i> (JONES — PARKER)	
<i>Glomospira</i> sp.	
<i>Guttulina acuta</i> (HANTKEN)	LXXXIX.
<i>Guttulina austriaca</i> D'ORBIGNY	XIII.
<i>Guttulina problema</i> D'ORBIGNY	XIV.
<i>Guttulina aff. problema</i> D'ORBIGNY	XIII.
<i>Guttulina problema deltoidea</i> (REUSS)	
<i>Guttulina</i> sp.	
<i>Gypsina globula</i> (REUSS)	LXXXIX.
<i>Gyroidinoides soldanii</i> (D'ORBIGNY)	XIX., LXXIX., CIII., CLIV.
<i>Hanzawaia boueana</i> (D'ORBIGNY)	XC., CII.
<i>Haplophragmium</i> sp.	III.
<i>Haplophragmoides anomalinoides</i> RHUMBLER	XCII.
<i>Haplophragmoides canariensis</i> D'ORBIGNY	
<i>Haplophragmoides compressa</i> LE ROY	
<i>Haplophragmoides obliquicameratus</i> MARKS	XCII.

<i>Haplophragmoides</i> sp.	
<i>Haplostiche rudis</i> (COSTA)	
<i>Hasterigerina pelagica</i> D'ORBIGNY	C.
<i>Hauerina bradyi</i> CUSHMAN	
<i>Hauerina ornatissima</i> KARRER	
<i>Hauerina plana</i> SEROVA	LXXXVI.
<i>Heterolepa bullata</i> FRANZENAU	XX.
<i>Heterolepa dutemplei</i> (D'ORBIGNY)	XX.
<i>Heterolepa eocaena</i> (GÜMBEL)	
<i>Heterolepa peelensis</i> (TEN DAM—REINHOLD)	XIX.
<i>Heterolepa simplex</i> FRANZENAU	XIX.
<i>Heterolepa</i> sp.	XIX.
<i>Heterostegina costata</i> D'ORBIGNY	LXXXIX., CXXVI.
<i>Heterostegina costata carinata</i> PAPP—KÜPPER	LXXXIX.
<i>Heterostegina granulatatesta</i> PAPP—KÜPPER	
<i>Heterostegina praecostata</i> PAPP—KÜPPER	LXXXIX.
<i>Heterostegina simplex</i> D'ORBIGNY	LXXXIX.
<i>Hoeglundina elegans</i> (D'ORBIGNY)	XX., LVI., XC.
<i>Hopkinsina bononiensis</i> (FORNASINI)	LXXIX., CL.
<i>Hopkinsina bononiensis primiformis</i>	
PAPP—TURNOVSKY	
<i>Hyperammina friabilis</i> BRADY	I.
<i>Hyperammina praelonga</i> VENGLINSKIJ	I.
<i>Karreriella bradyi</i> (CUSHMAN)	XCI.
<i>Karreriella chilostoma</i> (REUSS)	VII., XXII.
<i>Karreriella hantkeniana</i> CUSHMAN	VII.
<i>Karreriella siphonella</i> REUSS	
<i>Karreriella</i> sp.	
<i>Lagena acuticosta</i> REUSS	XXX., CXIX.
<i>Lagena amphora</i> REUSS	XXVIII.
* <i>Lagena apiculata</i> (REUSS)	
<i>Lagena asperula</i> REUSS	XI.
<i>Lagena costata</i> WILLIAMSON	
<i>Lagena gracilis</i> WILLIAMSON	XXVIII.
<i>Lagena hexagona</i> (WILLIAMSON)	XXIX., CXXII.
<i>Lagena hispida</i> REUSS	XI., CII., CXXIII.
<i>Lagena isabella</i> (D'ORBIGNY)	XI.
<i>Lagena laevis</i> MONTAGU	XCI., XCIII.
<i>Lagena semistriata</i> WILLIAMSON	CXIX.
<i>Lagena striata</i> (D'ORBIGNY)	XXIX., XXXII., CXX.
<i>Lagena sulcata</i> (WALKER—JACOB)	XI., XCI., CXXI.
<i>Lagena sulcata</i> var. <i>interrupta</i> WILLIAMSON	CII.
<i>Lagena tenuis ornata</i> REUSS	XXXI.
<i>Lagena vulgaris</i> WILLIAMSON	
<i>Lagena</i> div. sp.	
<i>Lagena</i> sp.	XI., XXXII.
<i>Lagenonodosaria oblonga</i> (D'ORBIGNY)	
<i>Lagenonodosaria papillosa</i> (SILVESTRI)	CXIII.

<i>Lagenonodosaria proxima</i> (SILVESTRI)	XCI., XCIX., CIX.
<i>Lagenonodosaria scalaris</i> (BATSCH)	X., XCIX., CXIV.
* <i>Lagenonodosaria scalaris</i> var. <i>sagamiensis</i> (ASANO)	XCIX., CXI., CXII.
<i>Lagenonodosaria sublineata</i> (BRADY)	CXV.
<i>Lagenonodosaria torsicostata</i> TEN DAM	XCIII.
* <i>Lamarcina erinacea</i> (KARRER)	XCI.
<i>Lankesterina advena</i> (CUSHMAN)	XXV.
<i>Lenticulina alabamensis</i> (CUSHMAN)	XCVI.
<i>Lenticulina americana</i> CUSHMAN	XCV.
<i>Lenticulina angustimargo</i> REUSS	XCV.
<i>Lenticulina aquitanica</i> (CUVILLIER—SZAKALL)	XCV.
* <i>Lenticulina arcuata</i> (KARRER)	XCV.
<i>Lenticulina arcuatostriata</i> (HANTKEN)	XII.
<i>Lenticulina ariminensis</i> (D'ORBIGNY)	XCIV., XCVI.
<i>Lenticulina austriaca</i> (D'ORBIGNY)	XCV.
<i>Lenticulina budensis</i> (HANTKEN)	XII.
<i>Lenticulina calcar</i> (LINNE)	XII., XCIV., XCV.
<i>Lenticulina cassis</i> (LAMARCK)	XCIV., CIII.
<i>Lenticulina clericii</i> (FORNASINI)	XCIV., CIII.
<i>Lenticulina convergens</i> (BORNEMANN)	
* <i>Lenticulina costata</i> (FICHTEL—MOLL)	XCVI., CIII.
* <i>Lenticulina crassa</i> (D'ORBIGNY)	XII., LXXX., XCII., XCIV.,
<i>Lenticulina cultrata</i> (MONTFORT)	XCVI., CVII.
* <i>Lenticulina dubia</i> (SEGUENZA)	XCIV., XCVI.
<i>Lenticulina echinata</i> (D'ORBIGNY)	XCIV., XCVI.
<i>Lenticulina gibba</i> (D'ORBIGNY)	XCIV.
<i>Lenticulina grandis</i> (TEN DAM)	XCVI.
* <i>Lenticulina hoernesii</i> (REUSS)	XCI.
<i>Lenticulina inornata</i> (D'ORBIGNY)	XII.
<i>Lenticulina limbata</i> BORNEMANN	XCIV.
<i>Lenticulina limbosa</i> (REUSS)	XII., XCV.
<i>Lenticulina macrodisca</i> (REUSS)	XCVI.
<i>Lenticulina orbicularis</i> (CUSHMAN)	XCIV.
* <i>Lenticulina paulae</i> (KARRER)	XCIV.
<i>Lenticulina princeps</i> (REUSS)	XCIV.
* <i>Lenticulina septentrionalis</i> (CUSHMAN)	XCIV., XCVI.
* <i>Lenticulina similis</i> (D'ORBIGNY)	
<i>Lenticulina simplex</i> (D'ORBIGNY)	XCVI.
<i>Lenticulina vitrea</i> (SEGUENZA)	XCIV.
<i>Lenticulina vortex</i> (FICHTEL—MOLL)	XXXIII., XCV.
<i>Lenticulina</i> div. sp.	LXXXVIII.
* <i>Lingulina costata</i> D'ORBIGNY	CXLI.
* <i>Loxostomum digitale</i> (D'ORBIGNY)	CXL.
* <i>Loxostomum limbatum</i> (BRADY)	LXXXIV., CXLII., CXLIII.
* <i>Loxostomum striatum</i> n. sp.	
* <i>Marginulina basispinosa</i> CUSHMAN—RENZ	
<i>Marginulina behmi</i> (REUSS)	XIII.

<i>Marginulina ex gr. behmi</i> (REUSS)	XIII.
<i>Marginulina costata</i> BATSCH	XCIX.
<i>Marginulina crepidula</i> FICHTEL—MOLL	LXXXVIII.
<i>Marginulina cristellaroides</i> CŽJŽEK	
<i>Marginulina cf. digitalis</i> (BRANDY)	XIII.
* <i>Marginulina dingdeni</i> TEN DAM—REINHOLD	CIII.
* <i>Marginulina echinata</i> NEUGEBOREN	XCIX.
<i>Marginulina gemmata</i> (BRADY)	CIX.
<i>Marginulina glabra</i> D'ORBIGNY	
<i>Marginulina hirsuta</i> D'ORBIGNY	XCVIII., XCIX., CIII., CX.
<i>Marginulina hispida</i> D'ORBIGNY	
* <i>Marginulina hispidocostata</i> n. sp.	CVIII.
<i>Marginulina jarvisi</i> CUSHMAN	CII.
<i>Marginulina nana</i> COSTA	CIX.
* <i>Marginulina nodosa</i> SEGUENZA	
<i>Marginulina ornata</i> HANTKEN	XCVIII.
<i>Marginulina pedum</i> D'ORBIGNY	XCVIII.
<i>Marginulina perprocera</i> (SCHWAGER)	
* <i>Marginulina pustulosa</i> NEUGEBOREN	XCVIII.
<i>Marginulina semicostata</i> REUSS	
<i>Marginulina semituberculata</i> (KARRER) var. <i>deducta</i> (FRANZENAU)	XCVIII.
* <i>Marginulina senni</i> (CUSHMAN—RENZ)	
<i>Marginulina similis</i> (D'ORBIGNY)	CIV.
<i>Marginulina striatula</i> CUSHMAN	XCVIII.
<i>Marginulina subbullata</i> HANTKEN	XIII., XXXIV.
<i>Marginulina vaginella</i> REUSS	XCVIII.
<i>Marginulina</i> sp.	
<i>Marginulinopsis fragaria</i> (GÜMBEL)	XIII.
<i>Martinottiella communis</i> (D'ORBIGNY)	VII.
<i>Massilina crenata</i> (KARRER)	
<i>Massilina haidingerii</i> (D'ORBIGNY)	
<i>Massilina secans</i> (D'ORBIGNY)	LXXXVII.
<i>Melonis pompilioides</i> (FICHTEL—MOLL)	
<i>Melonis soldanii</i> (D'ORBIGNY)	XCI., CXXV.
<i>Melonis umbilicata</i> (MONTAGU)	
<i>Miliammina</i> sp.	IV.
<i>Neoeponides schreibersii</i> (D'ORBIGNY)	XVII., XC.
<i>Nodosaria aculeata</i> D'ORBIGNY	CXVI.
<i>Nodosaria acuminata</i> HANTKEN	X.
* <i>Nodosaria bacilloides</i> HANTKEN	XXXV., XCIX.
<i>Nodosaria bactridium</i> REUSS	X.
<i>Nodosaria badenensis</i> D'ORBIGNY	XCIX.
<i>Nodosaria crassa</i> HANTKEN	XXXV.
<i>Nodosaria exilis</i> NEUGEBOREN	IX.
<i>Nodosaria ewaldi</i> (REUSS)	XCIX.
<i>Nodosaria hispida</i> D'ORBIGNY	XCIX., CXVII.
<i>Nodosaria kugleri</i> SILVESTRI	X.

<i>Nodosaria latejugata</i> GÜMBEL	X.
<i>Nodosaria longiscata</i> D'ORBIGNY	XCIX.
* <i>Nodosaria pentacostata</i> COSTA	
<i>Nodosaria perversa</i> SCHWAGER	XCIX.
<i>Nodosaria pyrula</i> D'ORBIGNY	IX., XXXV., XCIX.
<i>Nodosaria radicula</i> (LINNE)	XIV., CIII.
<i>Nodosaria radicula glanduliniformis</i> DERVIEUX	XCVIII.
<i>Nodosaria raphanistrum</i> LINNE	XCIX.
<i>Nodosaria resupinata</i> GÜMBEL	XCIX.
* <i>Nodosaria reussiana</i> NEUGEBOREN	XCIX.
<i>Nodosaria semirugosa</i> D'ORBIGNY	IX.
<i>Nodosaria simplex</i> SILVESTRI	IX., XCIX.
<i>Nodosaria soluta</i> REUSS	XCIX.
<i>Nodosaria spinicosta</i> D'ORBIGNY	XXVII.
<i>Nodosaria</i> sp.	XXVI.
* <i>Nonion inflatum</i> (SCHUBERT)	LXXXVIII.
<i>Nonion pizarrense</i> BERRY	XCI.
□ <i>Nonion</i> sp.	
<i>Nummolucilina contraria</i> (D'ORBIGNY)	
* <i>Oolina bidens</i> (CUSHMAN)	
<i>Oolina marginata</i> (WALKER—BOYS)	XCI., XCIII., CII.
* <i>Oolina marginatoperforata</i> (SEGUENZA)	CIII.
<i>Oolina orbigniana</i> (SEGUENZA)	XIV., XCI.
* <i>Oolina radiatomarginata</i> (PARKER—JONES)	XCIII.
<i>Oolina</i> sp.	XIV., XXX.
<i>Orbulina bilobata</i> (D'ORBIGNY)	C., CLXIX.
<i>Orbulina suturalis</i> BRONNIMANN	C., CLXVIII.
<i>Orbulina universa</i> D'ORBIGNY	C., CLXVII.
<i>Orthomorphina rohri</i> (CUSHMAN—STAINFORT)	IX.
* <i>Palmula appendicifera</i> NYÍRÖ	XCVII.
<i>Palmula longiforma</i> BERMUDEZ	XCVII.
<i>Patellina</i> sp.	
<i>Peneroplis planatus</i> (FICHTEL—MOLL)	LXXXVIII.
<i>Plancostoma oligocaenica</i> SZTRÁKOS	VII.
<i>Planorbulina mediterranensis</i> D'ORBIGNY	CLXX.
* <i>Planularia auris</i> (DEFRANCE)	XCIII.
<i>Planularia cassis</i> (FICHTEL—MOLL)	XCIV.
<i>Planularia crepidula</i> FICHTEL—MOLL	XCVIII.
* <i>Planularia grundensis</i> (KARRER)	XCVI.
* <i>Planularia helena</i> (KARRER)	XCIV., XCVI.
<i>Planularia kubinyii</i> (HANTKEN)	XII.
* <i>Planularia moravica</i> (KARRER)	XCV.
<i>Planularia nummulitica</i> (HANTKEN)	XII.
* <i>Planularia reniformis</i> (D'ORBIGNY)	XCVIII.
<i>Planularia simplex</i> D'ORBIGNY	XCVIII.
<i>Planularia tenuissima</i> (HERON—ALLEN—EARLAND)	XVIII.
<i>Planulina ambigua</i> (FRANZENAU)	XVIII.
<i>Planulina compressa</i> (HANTKEN)	XVIII.

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<i>Planulina costata</i> (HANTKEN)	XVIII.
<i>Planulina lobatula</i> (HANTKEN)	XVIII.
<i>Planulina wuellerstorfi</i> SCHWAGER	XVIII.
<i>Planulina</i> sp.	XCVII., CII.
<i>Plectofrondicularia diversicostata</i> (NEUGEBOREN)	
<i>Plectofrondicularia incompleta</i> (FRANZENAU)	
<i>Plectofrondicularia striata</i> (HANTKEN)	
<i>Plectofrondicularia</i> sp.	
<i>Polymorphina sororia</i> REUSS	XIV.
<i>Polymorphina sororia</i> var. <i>cuspidata</i> BRADY	
<i>Polymorphina</i> sp.	LIV.
<i>Praeglobobulimina ovata</i> (d'ORBIGNY)	CXIV.
<i>Praeglobobulimina pupoides</i> (d'ORBIGNY)	
<i>Praeglobobulimina pyrula</i> (d'ORBIGNY)	
<i>Protelphidium subgranosum</i> (EGGER)	XVII.
<i>Protelphidium</i> sp.	XVII.
<i>Pseudonodosaria discreta</i> (REUSS)	XIII., CIII.
<i>Pseudonodosaria laevigata</i> (d'ORBIGNY)	XXXVIII.
<i>Pullenia bulloides</i> (d'ORBIGNY)	LXXVI.
<i>Pullenia quinqueloba</i> (REUSS)	
* <i>Pyrgo anodontata</i> (KARRER)	
<i>Pyrgo bulloides</i> (d'ORBIGNY)	
<i>Pyrgo clypeata</i> (d'ORBIGNY)	
<i>Pyrgo inornata</i> (d'ORBIGNY)	
<i>Pyrgo simplex</i> (d'ORBIGNY)	
<i>Pyrgo</i> sp.	
<i>Pyrulina fusiformis</i> (ROEMER)	
* <i>Quinqueloculina agglutinans</i> d'ORBIGNY	
<i>Quinqueloculina auberiana</i> (d'ORBIGNY)	
<i>Quinqueloculina badensis</i> d'ORBIGNY	
* <i>Quinqueloculina buchiana</i> d'ORBIGNY	LXXXI., LXXXVI.
<i>Quinqueloculina candeiana</i> d'ORBIGNY	LXXXVII.
<i>Quinqueloculina costata</i> d'ORBIGNY	LXXXVII.
<i>Quinqueloculina ermani</i> BORNEMANN	IX.
<i>Quinqueloculina gigas</i> NATLAND	LXXXV.
<i>Quinqueloculina josephina</i> d'ORBIGNY	LXXXV.
<i>Quinqueloculina juleana</i> d'ORBIGNY	IX.
<i>Quinqueloculina lachensis</i> KARRER	LXXXV.
<i>Quinqueloculina linneiana</i> (d'ORBIGNY)	LXXXV., LXXXVI.
<i>Quinqueloculina longirostra</i> d'ORBIGNY	
<i>Quinqueloculina nussdorfensis</i> d'ORBIGNY	
<i>Quinqueloculina pulchella</i> d'ORBIGNY	LXXXVI.
<i>Quinqueloculina pusillocostata</i> (VENGLINSKIJ)	LXXXV., LXXXVII.
<i>Quinqueloculina schreibersii</i> d'ORBIGNY	LXXXI.
<i>Quinqueloculina seminula</i> (LINNE)	LXXXVI.
<i>Quinqueloculina triangularis</i> d'ORBIGNY	
<i>Quinqueloculina trigonula</i> (LAMARCK)	
<i>Quinqueloculina vermicularis</i> KARRER	LXXXV.

* <i>Quinqueloculina zigzag</i> D'ORBIGNY	LXXXIV.
<i>Quinqueloculina</i> sp.	XXIII.
<i>Rectobolivina zsigmondyi</i> (HANTKEN)	XLV., XLVI., LXXXIV.
<i>Reophax agglutinans</i> var. <i>glomeratus</i> CUSHMAN	III.
* <i>Reophax ampullacea</i> BRADY	I., LXXXIII.
<i>Reophax bacillaris</i> BRADY	III.
<i>Reophax bendensis</i> PLUMMER	I.
<i>Reophax brevis</i> PARR	II.
<i>Reophax complanata</i> (FRANKE)	II.
* <i>Reophax compressa</i> (GOES)	LXXXIII.
<i>Reophax densa</i> TAPPAN	V.
<i>Reophax depressa</i> NATLAND	LXXXIII.
<i>Reophax diffengiformis</i> BRADY	II.
<i>Reophax encatoensis</i> AYALA — ETERNAD — DE CASTELLO	III.
<i>Reophax labyrinthica</i> BRADY	II.
<i>Reophax morrisoni</i> CUSHMAN — ELLISOR	III.
* <i>Reophax nothi</i> MACFADYEN	LXXXIII.
<i>Reophax aff. polyeides</i> DEECKE	II.
<i>Reophax pylulifera</i> BRADY	III., V.
<i>Reophax pyrifera</i> (PLUMMER)	I.
<i>Reophax scorpiorus</i> MONTFORT	II.
<i>Reophax subfusiformis</i> EARLAND	I., V.
<i>Reophax variabilis</i> (BOGDANOWICZ)	I.
<i>Reophax</i> sp.	III., V.
<i>Reussella spinulosa</i> (REUSS)	LXXXIX.
<i>Reussella spinulosa</i> var. <i>laevigata</i> CUSHMAN	
<i>Reussella</i> sp.	
<i>Rhabdammina abyssorum</i> M. SARS	I.
<i>Rhabdammina eocenica</i> CUSHMAN — HANNA	I.
<i>Rhabdammina</i> sp.	
<i>Rotalia calcar</i> (D'ORBIGNY)	LXXXVIII.
<i>Rotalia kilianii</i> (ANDREEAE)	
<i>Rotalia papillosa</i> BRADY	
<i>Rotalia propinqua</i> ROEMER	XV., LXX.
<i>Rotalia</i> sp.	
<i>Sagrina</i> sp.	
<i>Saracenaria arcuata</i> (D'ORBIGNY)	
* <i>Saracenaria latifrons</i> (BRADY)	XCVIII., CLXI.
<i>Saracenaria propinqua</i> (HANTKEN)	XIII., XXIV.
<i>Saracenaria</i> sp.	
<i>Semivulvulina pectinata</i> (HANTKEN)	VI., XXI.
<i>Sigmoilina arenacea</i> (BRADY)	
<i>Sigmoilina asperula</i> (KARRER)	LXXXVI.
<i>Sigmoilina celata</i> (COSTA)	VII.
<i>Sigmomorphina anceps</i> (PHILIPPI)	XIV., XXXVIII.
<i>Sigmomorphina frondiculariformis</i>	
GALLOWAY — WISSLER	XCVII.
<i>Sigmomorphina</i> sp.	XIV.

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<i>Siphogeneroides elegans</i> (HANTKEN)	LVII.
<i>Siphonina reticulata</i> (ČJŽEK)	XV., XC., CII., CLVII.
<i>Siphotextularia concava</i> (KARRER)	LXXXVIII.
<i>Sphaeroidina bulloides</i> d'ORBIGNY	LXXXIX.
<i>Sphaeroidina variabilis</i> REUSS	XXXIX.
<i>Sphaeroidina</i> sp.	
<i>Spiroloculina antillarum</i> d'ORBIGNY	LXXXVI.
* <i>Spiroloculina canaliculata</i> d'ORBIGNY	VII., XXIII., LXXXVII.
* <i>Spiroloculina crassa</i> SEGUENZA	LXXXVI.
<i>Spiroloculina excavata</i> d'ORBIGNY	LXXXVII., CVI.
* <i>Spiroloculina striatula</i> TEN DAM—REINHOLD	
<i>Spiroloculina</i> sp.	VI.
<i>Spirolectammina bükkiana</i> SZTRÁKOS	VI., LXXXIV., CIV.
<i>Spirolectammina carinata</i> (d'ORBIGNY)	LXXXIV.
<i>Spirolectammina deperdita</i> (d'ORBIGNY)	LXXXIV.
<i>Spirolectammina pectinata</i> (REUSS)	VII., CV.
<i>Spirosigmoilina tenuis</i> (ČJŽEK)	X., XXIV., CXVIII.
<i>Stilostomella adolphina</i> (d'ORBIGNY)	XI.
* <i>Stilostomella approximata</i> (REUSS)	
* <i>Stilostomella dimorpha</i> (PARKER—JONES) var. <i>ornata</i> (SCHUBERT)	XI., CIV.
<i>Stilostomella elegans</i> (d'ORBIGNY)	X.
<i>Stilostomella hoernesii</i> (HANTKEN)	X., XCIX., CII., CIV.
<i>Stilostomella pauperata</i> (d'ORBIGNY)	XI.
<i>Stilostomella verneuilii</i> (d'ORBIGNY)	
<i>Svratkina perlata</i> (ANDREAE)	
<i>Textularia abbreviata</i> d'ORBIGNY	LXXVIII.
<i>Textularia acuta</i> REUSS	
<i>Textularia agglutinans</i> d'ORBIGNY	XXI.
<i>Textularia bronniana</i> d'ORBIGNY	XXI.
<i>Textularia flexua</i> VENGLINSKIJ	XCI.
<i>Textularia conica</i> d'ORBIGNY	XCI.
<i>Textularia lanceolata</i> (KARRER)	XCI.
<i>Textularia mariae</i> d'ORBIGNY	LXXXIV.
<i>Textularia mayeriana</i> d'ORBIGNY	
<i>Textularia pala</i> ČJŽEK	VI., LXXX.
<i>Textularia sculpturata</i> CUSHMAN—TEN DAM	XCI.
<i>Textularia subangulata</i> d'ORBIGNY	LXXXIV.
<i>Textularia trochus</i> d'ORBIGNY	
<i>Textularia</i> sp.	VI.
<i>Trifarina angulosa</i> (WILLIAMSON)	CXXXIII., CLI.
<i>Trifarina bradyi</i> CUSHMAN	XCI.
<i>Trifarina budensis</i> (HANTKEN)	LX.
<i>Trifarina gracilis</i> (REUSS)	LXI.
<i>Trifarina occidentalis</i> CUSHMAN	
<i>Trifarina</i> sp.	
<i>Triloculina austriaca</i> d'ORBIGNY	
<i>Triloculina consobrina</i> d'ORBIGNY	

<i>Triloculina gibba</i> d'ORBIGNY	IX.
<i>Triloculina inflata</i> d'ORBIGNY	LXXXVI.
<i>Triloculina pulchella</i> d'ORBIGNY	IX.
<i>Triloculina subrotunda</i> (MONTAGU)	LXXX.
<i>Triloculina tricarinata</i> d'ORBIGNY	IX.
<i>Triloculina trigonula</i> (LAMARCK)	VII.
<i>Triloculina</i> sp.	VII., XXII.
<i>Tritaxia haeringensis</i> (CUSHMAN)	CXLV.
<i>Tritaxia szabói</i> (HANTKEN)	CIV., CXLIV.
<i>Tritaxilina budensis</i> (HANTKEN)	XVI.
<i>Tritaxilina hantkeni</i> CUSHMAN	CII., CXLVI.
<i>Tritaxilina</i> sp.	XVI.
<i>Trochammina</i> sp.	CXLVII.
<i>Truborotalia munda munda</i> JENKINS	CXLVIII.
<i>Uvigerina aculeata</i> d'ORBIGNY	XV., LIX.
<i>Uvigerina asperula</i> CŽJŽEK	XVIII.
<i>Uvigerina farinosa</i> (HANTKEN)	XVI.
<i>Uvigerina gallowayi</i> CUSHMAN	XVI.
<i>Uvigerina graciliformis</i> PAPP — TURNOVSKY	XVII.
<i>Uvigerina hantkeni</i> CUSHMAN — EDWARDS	XVIII.
<i>Uvigerina macrocarinata</i> PAPP — TURNOVSKY	XVIII.
<i>Uvigerina pygmea</i> d'ORBIGNY	XVII.
<i>Uvigerina pygmoides</i> PAPP — TURNOVSKY	XVIII.
<i>Uvigerina rudlingensis</i> PAPP	XV., LIX.
<i>Uvigerina semiornata</i> d'ORBIGNY	XVIII.
* <i>Uvigerina steyri steyri</i> PAPP	XVI.
<i>Uvigerina ex gr. steyri</i> PAPP	CXLIX.
<i>Uvigerina szakálensis</i> MAJZON	XVII., LXIV.
<i>Uvigerina tenuistriata</i> REUSS	XVIII.
<i>Uvigerina urnula</i> d'ORBIGNY	XVIII.
<i>Uvigerina venusta</i> FRANZENAU	XVIII.
<i>Uvigerina</i> sp.	XVIII.
<i>Vaginulina badenensis</i> d'ORBIGNY	XVIII.
<i>Vaginulina legumen</i> (LINNE)	XIII., XXXIII.
<i>Vaginulina</i> sp.	XIII.
<i>Vaginulinopsis gladius</i> (PHILIPPI)	XIII.
<i>Vaginulinopsis ex gr. gladius</i> (PHILIPPI)	XIII.
<i>Valvulina</i> sp.	XVII., LXIV.
<i>Valvularia complanata</i> (d'ORBIGNY)	XVII., LXIV.
<i>Verneuilina</i> sp.	LXXIII., LXXIV.
<i>Viktoriella abnormis</i> (HANTKEN)	CXXX.
* <i>Virgulinella miocenica</i> (CUSHMAN — PONTON)	XVIII.
<i>Vulvulina arenacea</i> BAGG	XVIII.
<i>Vulvulina capreolus</i> (d'ORBIGNY)	XVIII.
<i>Vulvulina haeringensis</i> (GÜMBEL)	XVIII.
* <i>Vulvulina pennatula</i> (BATSCH)	XVIII., CIV.
<i>Vulvulina subflabelliformis</i> HANTKEN	XVIII.
<i>Vulvulina</i> sp.	XVIII.

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TÁBLÁK – PLATES

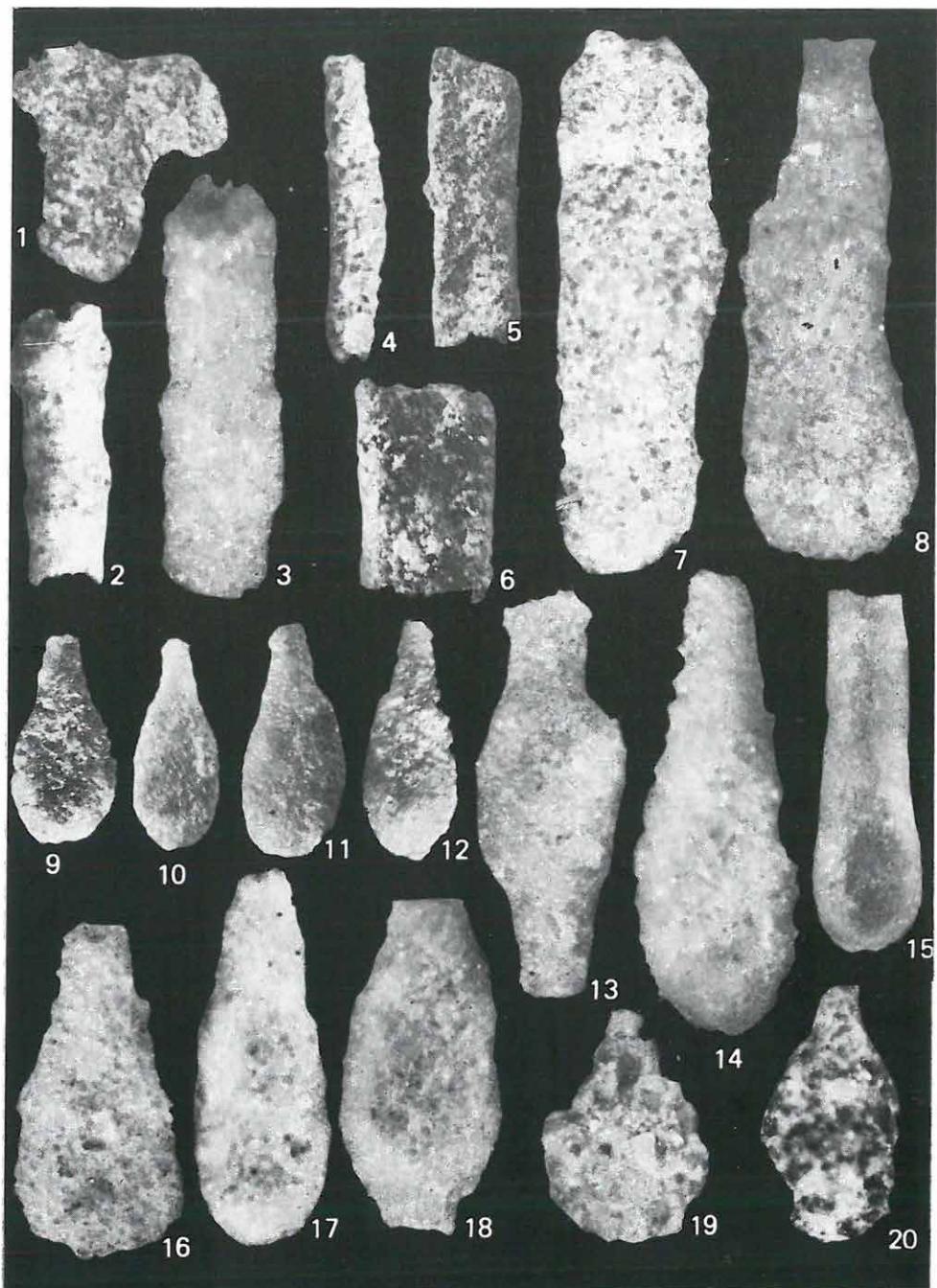
Fénymikroszkópos felvételek az I–XX. és LXXVIII–CIV. táblákon, SEM felvételek a XXI–LXXVII. és CV–CLXXI. táblákon találhatók. Oligocén fauna: I–LXXVII. táblákon, miocén fauna: LXXVIII–CLXXI. táblákon.

A fénymikroszkópos felvételeket DOMONKOS ISTVÁNNÉ és LAKY ILDIKÓ, a SEM felvételeket LAKY ILDIKÓ és TAKÁCS BARNABÁSNÉ készítette.

Photos made with optical microscope can be found in Plates I–XX and LXXVIII–CIV, the ones with SEMs in Plates XXI–LXXVII and CV–CLXXI. The Oligocene faunas are shown in Plates I–LXXVII, the Miocene ones in Plates LXXVIII–CLXXI.

I. tábla — Plate I
Oligocén

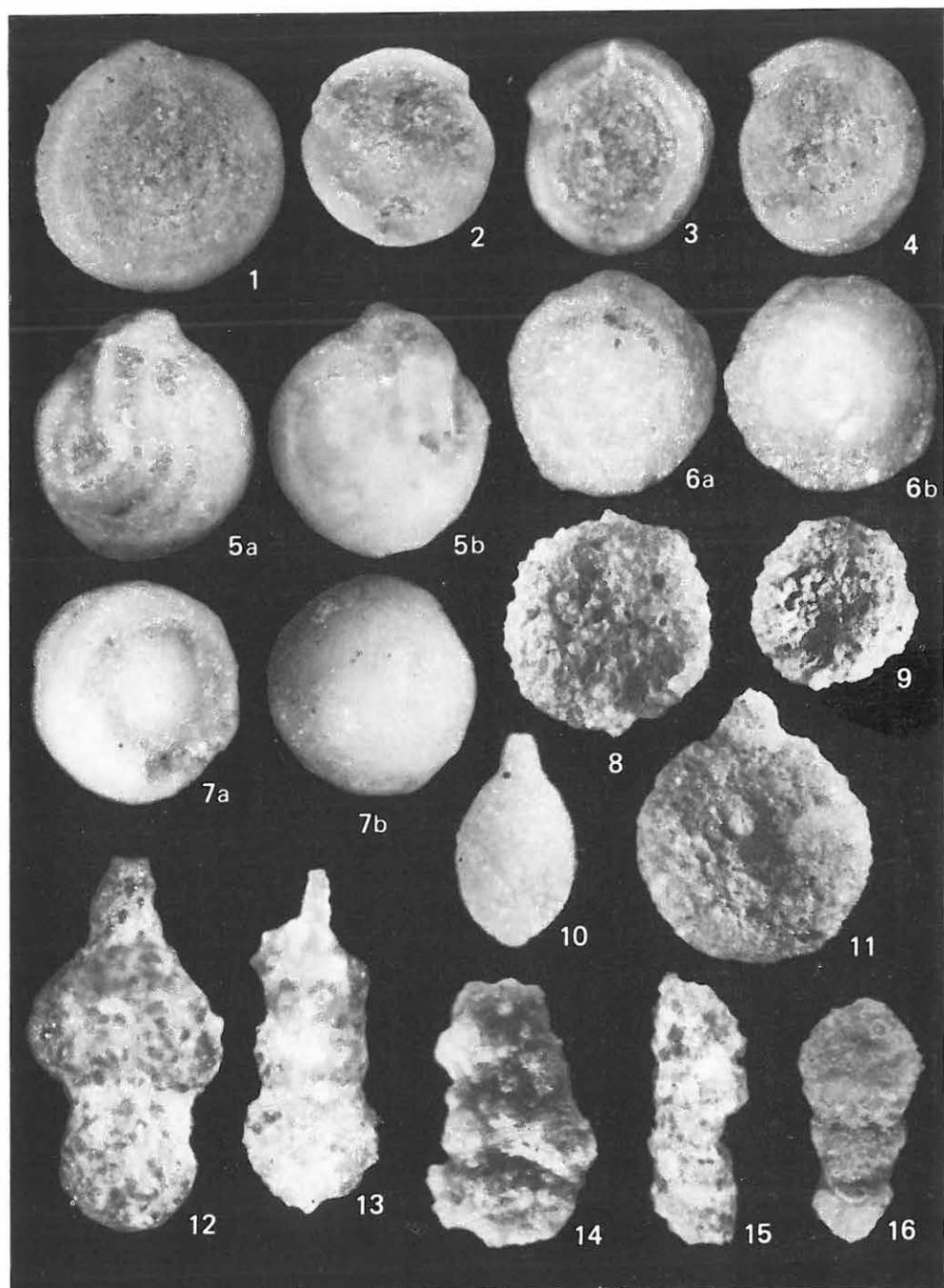
1. *Rhabdammina eocenica* CUSHMAN et HANNA 15×
Berkenye 4. sz. f. 158,0—160,0 m
2. *Rhabdammina eocenica* CUSHMAN et HANNA 15×
Márianosztra 3. sz. f. 80,0—82,0 m
3. *Rhabdammina eocenica* CUSHMAN et HANNA 15×
Márianosztra 3. sz. f. 62,6—67,0 m
4. *Rhabdammina abyssorum* M. SARS 15×
Berkenye 4. sz. f. 168,0—170,0 m
5. *Bathysiphon* sp. 11,3×
Márianosztra 3. sz. f. 62,6—67,0 m
6. *Bathysiphon* sp. 18×
Berkenye 4. sz. f. 46,0—48,0 m
7. *Bathysiphon* sp. 45×
Márianosztra 3. sz. f. 62,0—62,6 m
8. *Hyperammina friabilis* BRADY 45×
Berkenye 3. sz. f. 36,0—38,0 m
9. *Reophax ampullacea* BRADY 30×
Berkenye 4. sz. f. 46,0—48,0 m
- 10—12. *Reophax ampullacea* BRADY 30×
Berkenye 4. sz. f. 46,0—48,0 m
13. *Reophax pyrifera* (PLUMMER) 45×
Berkenye 3. sz. f. 36,0—38,0 m
- 14—15. *Hyperammina friabilis* BRADY 14: 65×, 15: 45×
Berkenye 3. sz. f. 28,0—30,0 m
16. *Hyperammina praelonga* VENGLINSKIJ 45×
Berkenye 3. sz. f. 48,5—50,5 m
17. *Hyperammina friabilis* BRADY 45×
Márianosztra 3. sz. f. 76,0—78,0 m
18. *Reophax bendensis* PLUMMER 45×
Berkenye 3. sz. f. 28,0—30,0
19. *Reophax variabilis* (BOGDANOWICZ) 45×
Berkenye 3. sz. f. 48,5—50,5 m
20. *Reophax subfusiformis* EARLAND 45×
Berkenye 3. sz. f. 28,0—30,0 m



II. tábla — Plate II

Oligocén

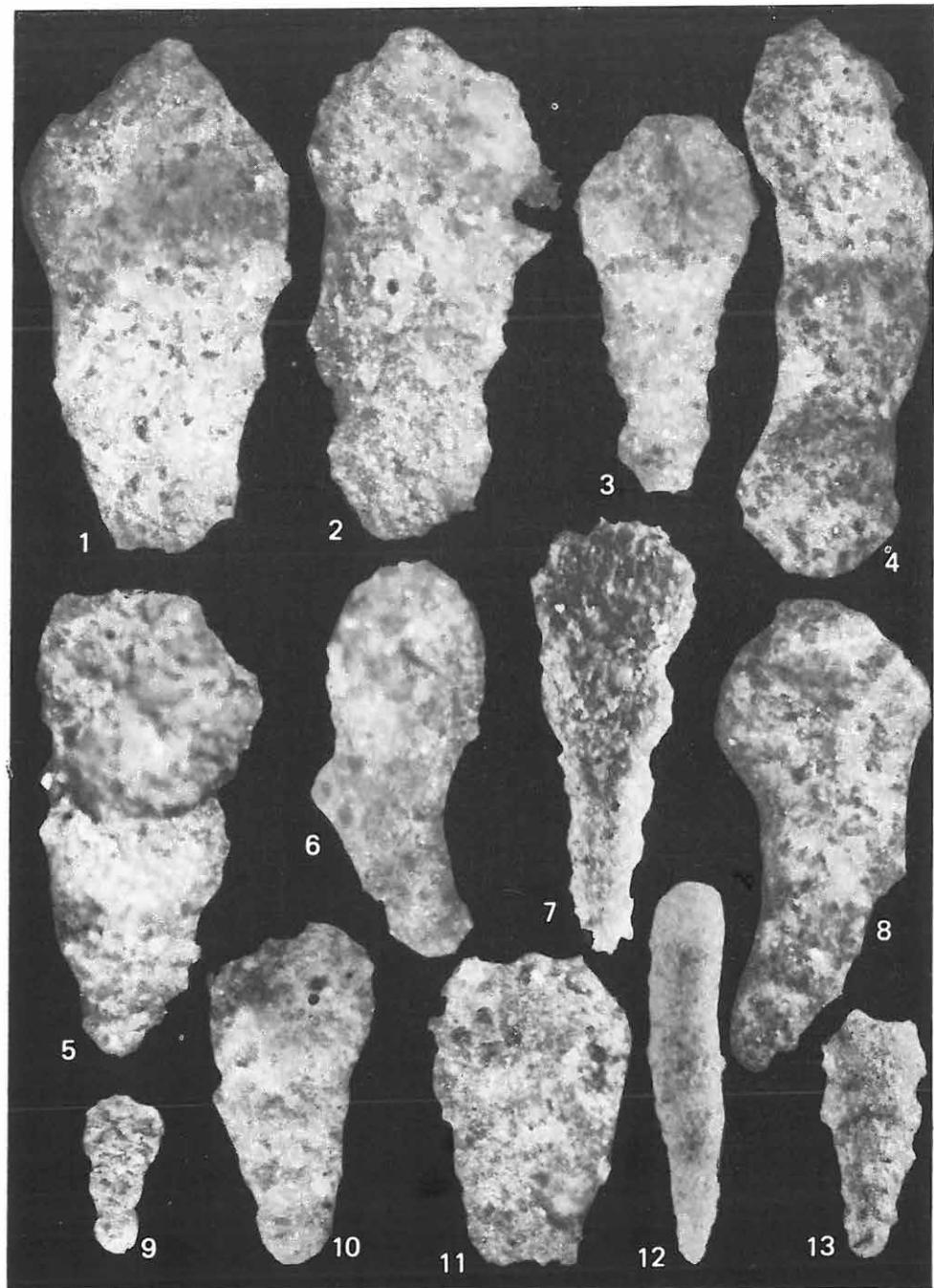
1. *Ammodiscus incertus* (d'ORBIGNY) 45×
Márianosztra 3. sz. f. 93,0—97,0 m
2. *Ammodiscus incertus* (d'ORBIGNY) 30×
Berkenye 4. sz. f. 64,0—66,0 m
3. *Ammodiscus incertus* (d'ORBIGNY) 65×
Márianosztra 3. sz. f. 67,0—69,0 m
4. *Ammodiscus incertus* (d'ORBIGNY) 45×
Márianosztra 3. sz. f. 76,0—78,0 m
- 5a—b. *Glomospira* sp. 65×
Márianosztra 3. sz. f. 69,0—71,0 m
- 6a—b. *Glomospira charoides* (JONES et PARKER) 65×
Márianosztra 3. sz. f. 47,0—48,6 m
- 7a—b. *Glomospira charoides* (JONES et PARKER) 65×
Márianosztra 3. sz. f. 78,0—80,0 m
- 8—9. *Reophax labyrinthica* BRADY 23×
Berkenye 4. sz. f. 64,0—66,0 m
10. *Reophax diffengiformis* BRADY 65×
Márianosztra 3. sz. f. 80,0—82,0 m
11. *Reophax complanata* (FRANKE) 30×
Berkenye 4. sz. f. 64,0—66,0 m
- 12—13. *Reophax* aff. *polyeides* DEECKE 12: 45×, 13: 65×
Berkenye 3. sz. f. 40,0—42,0 m
14. *Reophax scorpiurus* MONTFORT 29×
Berkenye 4. sz. f. 100,0—102,0 m
15. *Reophax scorpiurus* MONTFORT 15×
Berkenye 4. sz. f. 158,0—160,0 m
16. *Reophax brevis* PARR 30×
Berkenye 4. sz. f. 64,0—66,0 m



III. tábla — Plate III

Oligocén

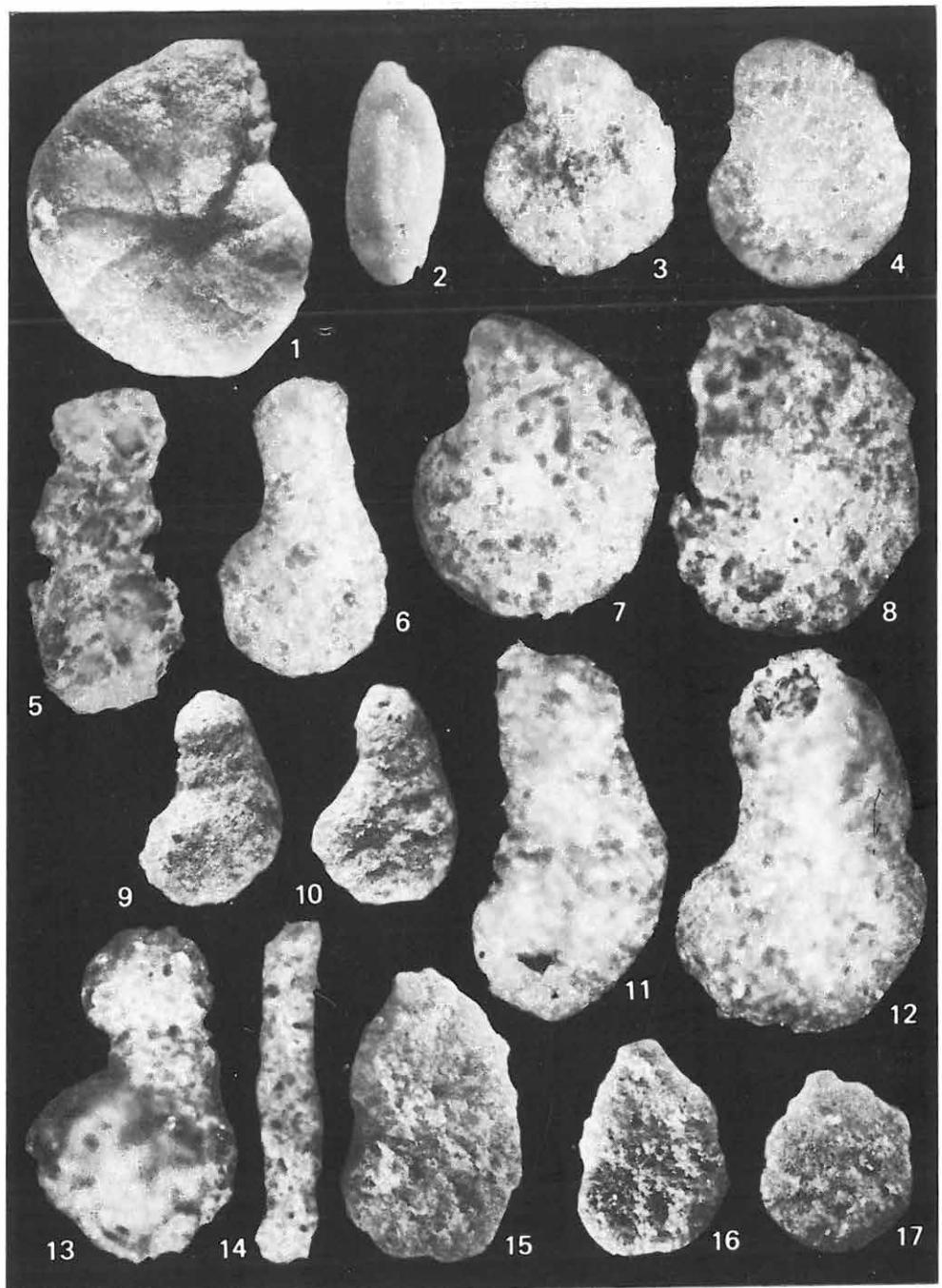
1. *Reophax encatoensis* AYALA, ETERNAD et DE CASTELLO 45×
Berkenye 3. sz. f. 48,5—50,5 m
- 2—3. *Reophax pylulifera* BRADY 45×
Berkenye 3. sz. f. 28,0—30,0 m
4. *Haplophragmium* sp. 45×
Berkenye 3. sz. f. 62,0—64,0 m
5. *Reophax* sp. 45×
Berkenye 3. sz. f. 54,0—56,0 m
6. *Reophax* sp. 45×
Berkenye 3. sz. f. 48,5—50,5 m
7. *Reophax pylulifera* BRADY 30×
Berkenye 4. sz. f. 46,0—48,0 m
8. *Reophax agglutinans* var. *glomeratus* CUSHMAN 45×
Berkenye 3. sz. f. 62,0—64,0 m
9. *Reophax morrisoni* CUSHMAN et ELLISOR 30×
Berkenye 4. sz. f. 64,0—66,0 m
10. *Reophax* sp. 45×
Márianosztra 3. sz. f. 67,0—69,0 m
11. *Reophax encatoensis* AYALA, ETERNAD et DE CASTELLO 64×
Márianosztra 3. sz. f. 67,0—69,0 m
12. *Reophax bacillaris* BRADY 30×
Berkenye 4. sz. f. 64,0—66,0 m
13. *Reophax* sp. 30×
Berkenye 4. sz. f. 64,0—66,0 m



IV. tábla — Plate IV

Oligocén

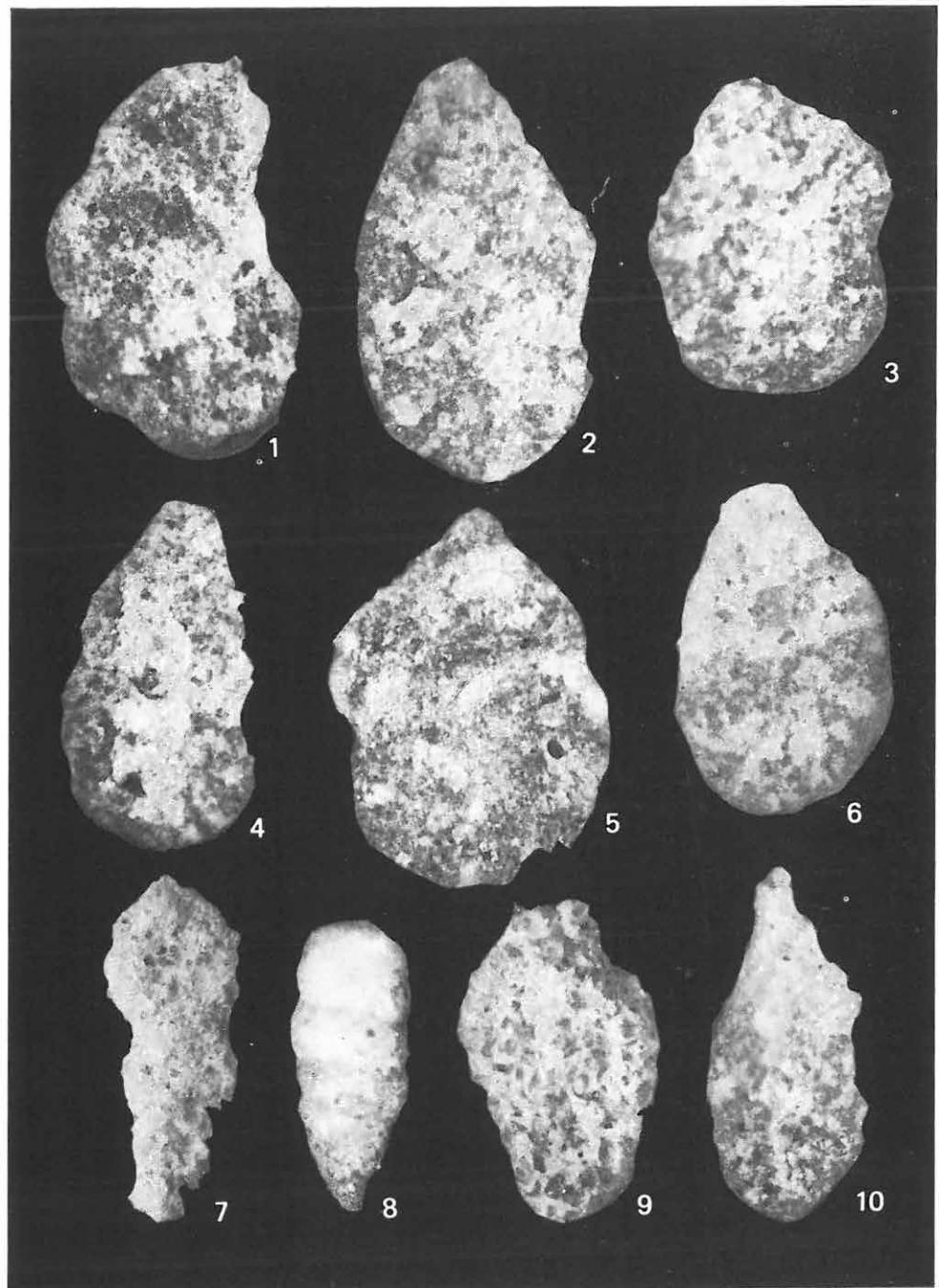
1. *Cyclammina acutidorsata* (HANTKEN) 18,5×
Berkenye 4. sz. f. 158,0—160,0 m
2. *Miliammina* sp. 65×
Diósjenő 6. sz. f. 126,0—128,0 m
3. *Cyclammina* sp. 65×
Berkenye 1. sz. f. 58,0—59,0 m
4. *Cyclammina* sp. 45×
Márianosztra 3. sz. f. 47,0—48,6 m
5. *Ammobaculites* sp. 63×
Berkenye 4. sz. f. 224,0—226,0 m
6. *Ammobaculites* sp. 65×
Márianosztra 3. sz. f. 80,0—82,0 m
7. *Cyclammina* sp. 45×
Berkenye 4. sz. f. 36,0—38,0 m
8. *Cyclammina* sp. 65×
Berkenye 1. sz. f. 58,0—59,0 m
9. *Ammobaculites agglutinans* (d'ORBIGNY) 23×
Berkenye 4. sz. f. 116,0—118,0 m
10. *Ammobaculites agglutinans* (d'ORBIGNY) 23×
Berkenye 4. sz. f. 120,0—122,0 m
- 11—12. *Ammobaculites* sp. 11: 65×, 12: 45×
Márianosztra 3. sz. f. 62,6—67,0 m
13. *Ammobaculites* sp. 45×
Berkenye 3. sz. f. 54,0—56,0 m
14. *Ammomarginulina* sp. 23×
Berkenye 4. sz. f. 224,0—226,0 m
- 15—17. *Ammobaculites* sp. 23×
Berkenye 4. sz. f. 224,0—226,0 m



V. tábla — Plate V

Oligocén

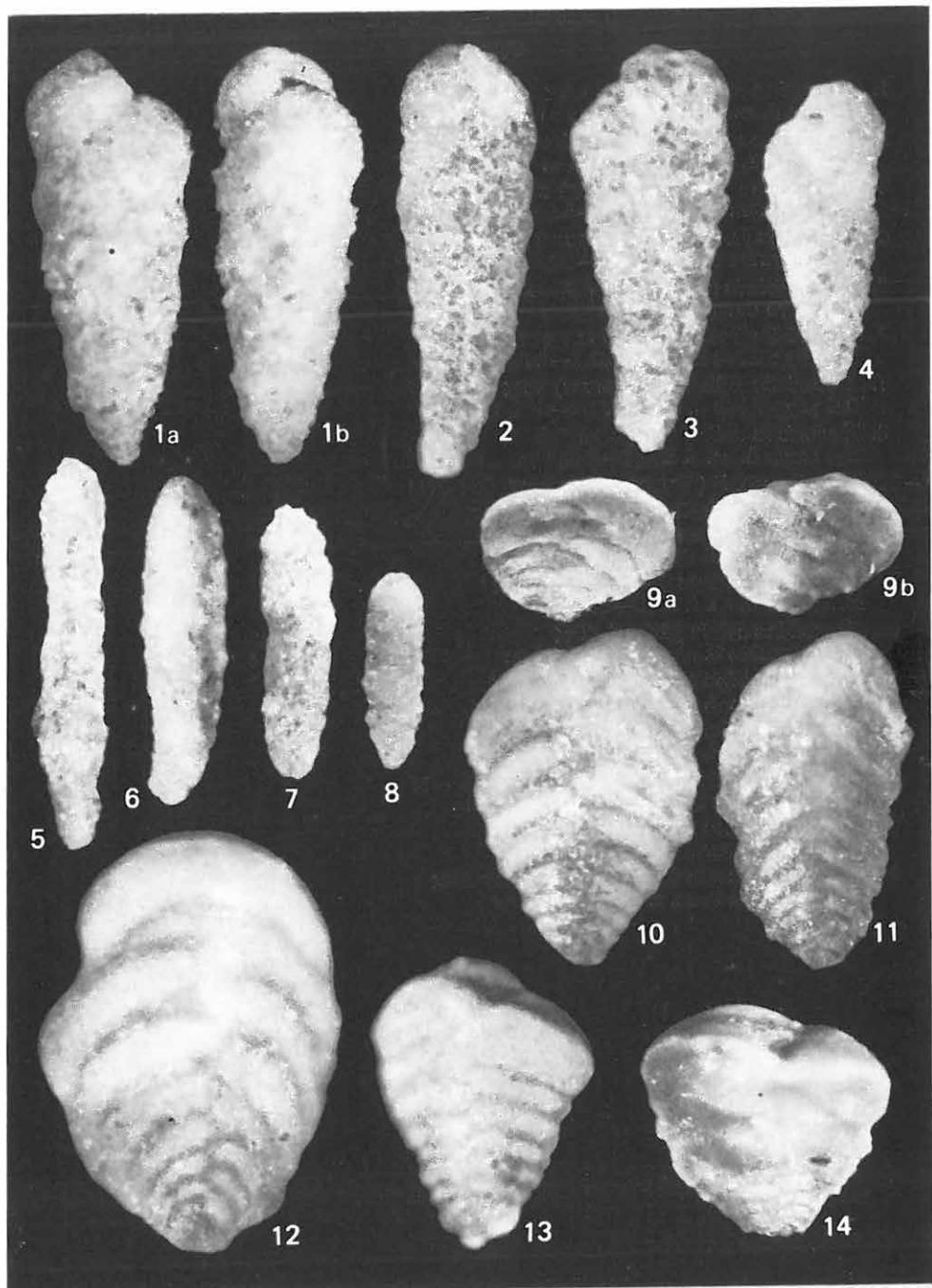
- 1., 2., 4. *Ammomarginulina* div. sp. 31,5×
Berkenye 4. sz. f. 224,0—226,0 m
- 3., 5. *Ammomarginulina expansa* (PLUMMER) 31,5×
Berkenye 4. sz. f. 224,0—226,0 m
6. *Ammomarginulina* sp. 31,5×
Berkenye 4. sz. f. 224,0—226,0 m
7. *Reophax pylularia* BRADY 31,5×
Berkenye 4. sz. f. 224,0—226,0 m
8. *Reophax densa* TAPPAN 31,5×
Berkenye 1. sz. f. 55,0—56,0 m
9. *Reophax* sp. 31,5×
Berkenye 3. sz. f. 28,0—30,0 m
10. *Reophax subfusiformis* EARLAND 31,5×
Berkenye 4. sz. f. 224,0—226,0 m



VI. tábla — Plate VI

Oligocén

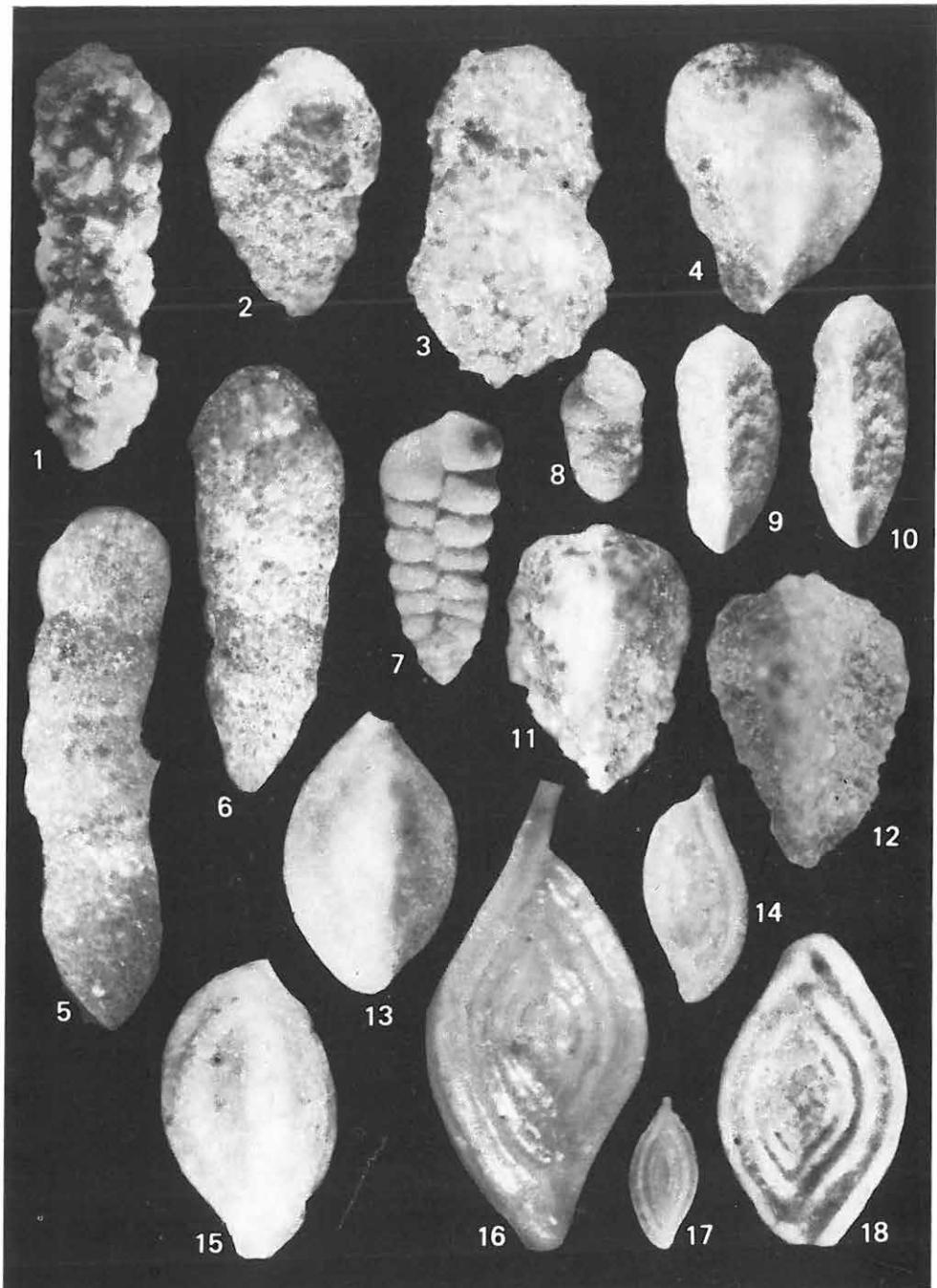
- 1a—b., 3. *Textularia* sp. 45×
Berkenye 3. sz. f. 28,0—30,0 m
2. *Textularia* sp. 45×
Berkenye 3. sz. f. 58,0—60,0 m
4. *Textularia* sp. 65×
Berkenye 3. sz. f. 52,6—54,0 m
5. *Spiroplectammina bükkiana* SZTRÁKOS 45×
Berkenye 3. sz. f. 48,5—50,5 m
6. *Spiroplectammina bükkiana* SZTRÁKOS 65×
Berkenye 1. sz. f. 44,0—45,0 m
7. *Spiroplectammina bükkiana* SZTRÁKOS 65×
Berkenye 3. sz. f. 33,7—36,0 m
8. *Spiroplectammina bükkiana* SZTRÁKOS 45×
Berkenye 4. sz. f. 9,0—10,0 m
- 9a—b. *Textularia* sp. 39,5×
Berkenye 4. sz. f. 30,0—32,0 m
10. *Semivulvulina pectinata* (HANTKEN) 65×
Drégelypalánk 2. sz. f. 442,0—444,0 m
11. *Spiroplectammina carinata* (d'ORBIGNY) 45×
Drégelypalánk 2. sz. f. 371,0—373,0 m
12. *Vulvulina haeringensis* (GÜMBEL) 65×
Márianosztra 3. sz. f. 67,0—69,0 m
13. *Semivulvulina pectinata* (HANTKEN) 65×
Drégelypalánk 2. sz. f. 471,0—473,0 m
14. *Textularia pala* CŽJŽEK 65×
Berkenye 3. sz. f. 50,5—52,6 m



VII. tábla — Plate VII

Oligocén

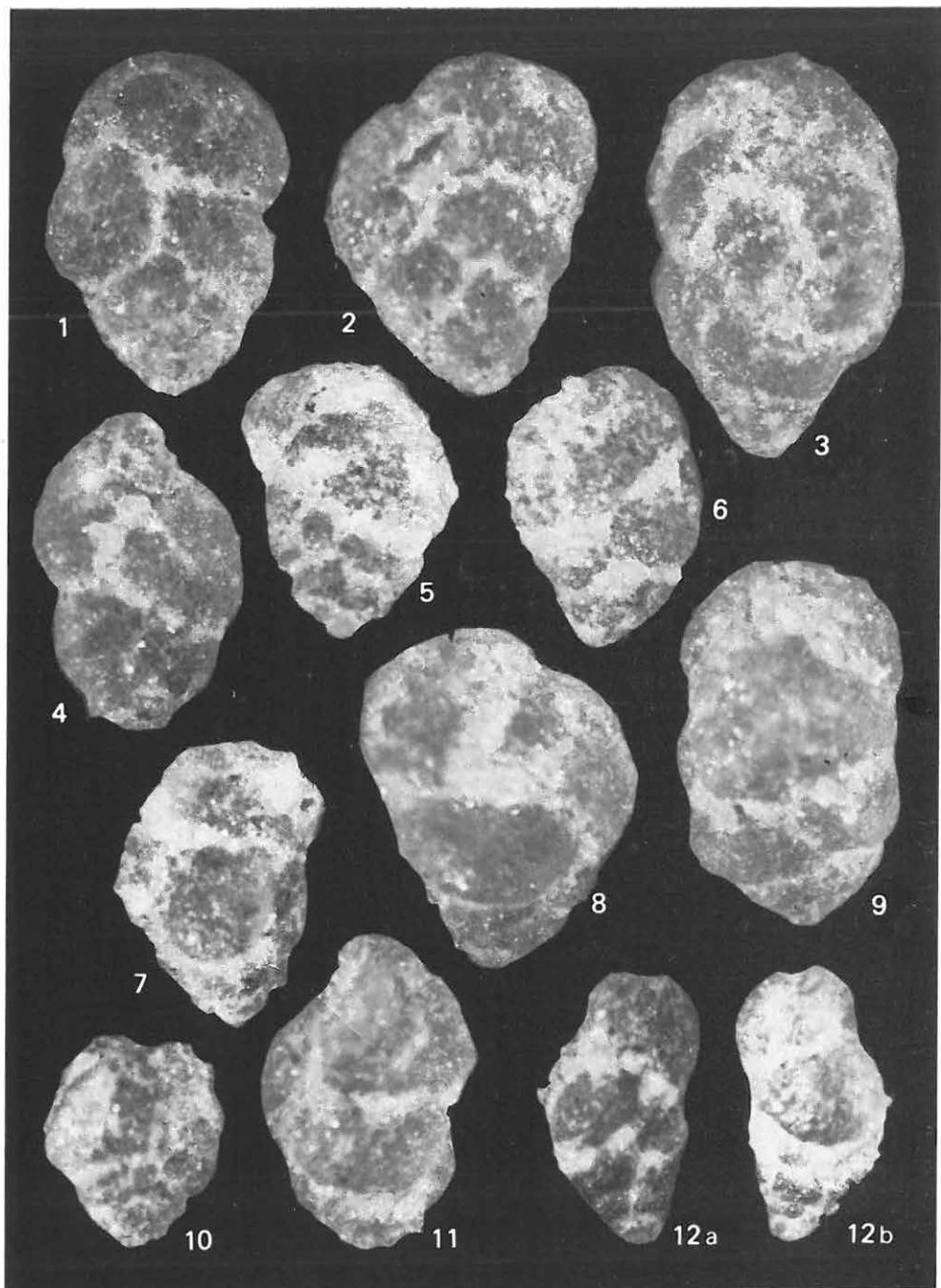
1. *Bigenerina acuta* KLÄHN 24,5×
Nógrád 5. sz. f. 106,5—108,0 m
2. *Plancostoma oligocenica* SZTRÁKOS 65×
Berkenye 1. sz. f. 60,0—61,0 m
3. *Plancostoma oligocenica* SZTRÁKOS 65×
Márianosztra 3. sz. f. 62,6—67,0 m
4. *Gaudryina fortiuscula* BERMUDEZ 65×
Márianosztra 3. sz. f. 80,0—82,0 m
5. *Martinottiella communis* (D'ORBIGNY) 65×
Berkenye 4. sz. f. 11,0—12,0 m
6. *Karreriella hantkeniana* CUSHMAN 45×
Drégelypalánk 2. sz. f. 371,0—373,0 m
7. *Karreriella chilostoma* (REUSS) 65×
Drégelypalánk 2. sz. f. 479,0—481,3 m
8. *Karreriella chilostoma* (REUSS) 18×
Berkenye 4. sz. f. 120,0—122,0 m
- 9—10. *Tritaxia szabói* (HANTKEN) 9: 18×, 10: 45×
Márianosztra 3. sz. f. 80,0—82,0 m
11. *Tritaxia haeringensis* (CUSHMAN) 45×
Márianosztra 3. sz. f. 80,0—82,0 m
12. *Tritaxia haeringensis* (CUSHMAN) 45×
Berkenye 3. sz. f. 28,0—30,0 m
13. *Sigmoilina celata* (COSTA) 65×
Márianosztra 3. sz. f. 78,0—80,0 m
14. *Spirosigmoilina tenuis* (CŽJŽEK) 65×
Márianosztra 3. sz. f. 76,0—78,0 m
15. *Sigmoilina celata* (COSTA) 65×
Márianosztra 3. sz. f. 62,6—67,0 m
16. *Spiroloculina canaliculata* D'ORBIGNY 39,5×
Drégelypalánk 2. sz. f. 454,0—456,0 m
17. *Spirosigmoilina tenuis* (CŽJŽEK) 65×
Berkenye 4. sz. f. 40,0—42,0 m
18. *Spiroloculina canaliculata* D'ORBIGNY 65×
Márianosztra 3. sz. f. 86,0—87,40 m



VIII. tábla — Plate VIII

Oligocén

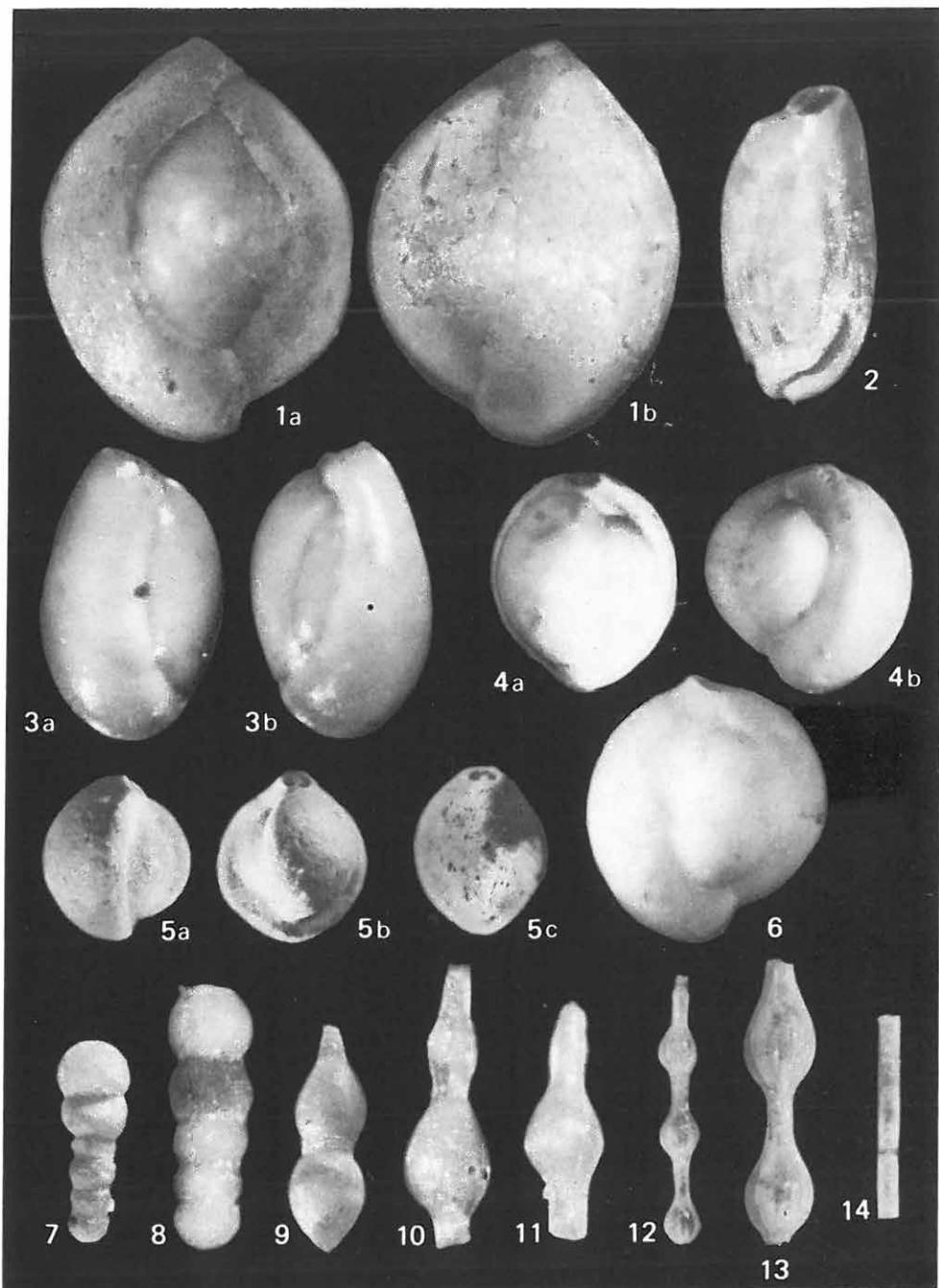
1—12a—b. *Globotextularia* div. sp. 45×
Berkenye 4. sz. f. 224,0—226,0 m



IX. tábla — Plate IX

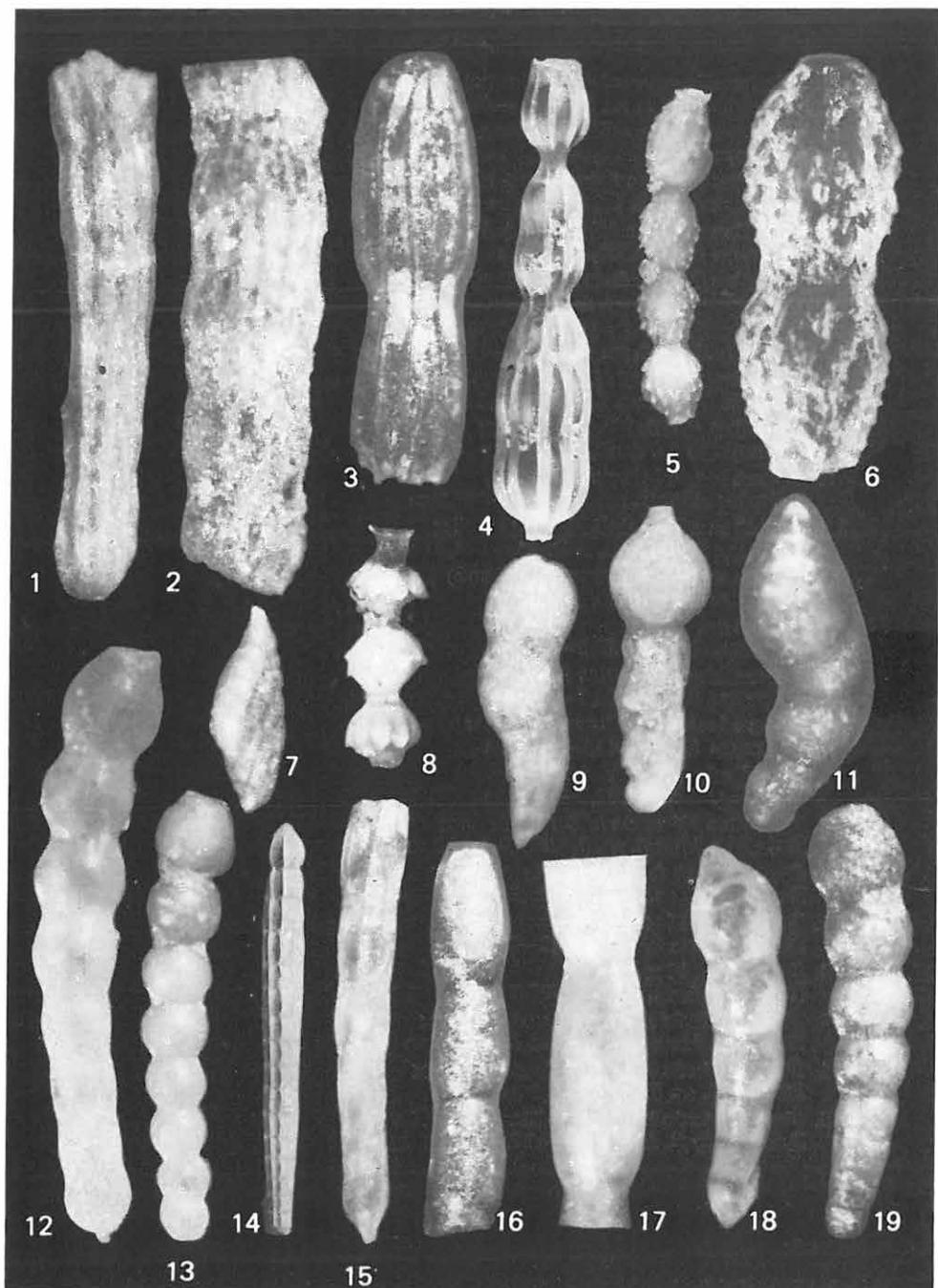
Oligocén

- 1a—b. *Quinqueloculina ermani* BORNEMANN 61×
Drégelypalánk 2. sz. f. 452,0—454,0 m
2. *Quinqueloculina juleana* d'ORBIGNY 65×
Márianosztra 14. sz. f. 335,5 m
- 3a—b. *Triloculina* sp. 65×
Márianosztra 14. sz. f. 334,5 m
- 4a—b. *Triloculina inflata* d'ORBIGNY 45×
Márianosztra 3. sz. f. 89,0—91,0 m
- 5a—c. *Triloculina trigonula* (LAMARCK) 29×
Berkenye 4. sz. f. 82,0—84,0 m
6. *Triloculina subrotunda* (MONTAGU) 65×
Márianosztra 3. sz. f. 89,0—91,0 m
7. *Orthomorphina rohri* (CUSHMAN et STAINFORT) 39,5×
Berkenye 4. sz. f. 6,0—8,0 m
8. *Orthomorphina rohri* (CUSHMAN et STAINFORT) 65×
Márianosztra 14. sz. f. 91,3 m
9. *Nodosaria simplex* SILVESTRI 29×
Berkenye 4. sz. f. 86,0—88,0 m
10. *Nodosaria semirugosa* d'ORBIGNY 65×
Berkenye 3. sz. f. 36,0—38,0 m
11. *Nodosaria semirugosa* d'ORBIGNY 65×
Márianosztra 3. sz. f. 78,0—80,0 m
- 12—13. *Nodosaria pyrula* d'ORBIGNY 29×
Berkenye 4. sz. f. 50,5—52,0 m
14. *Nodosaria exilis* NEUGEBOREN 29×
Berkenye 4. sz. f. 22,0—23,0 m



X. tábla — Plate X
Oligocén

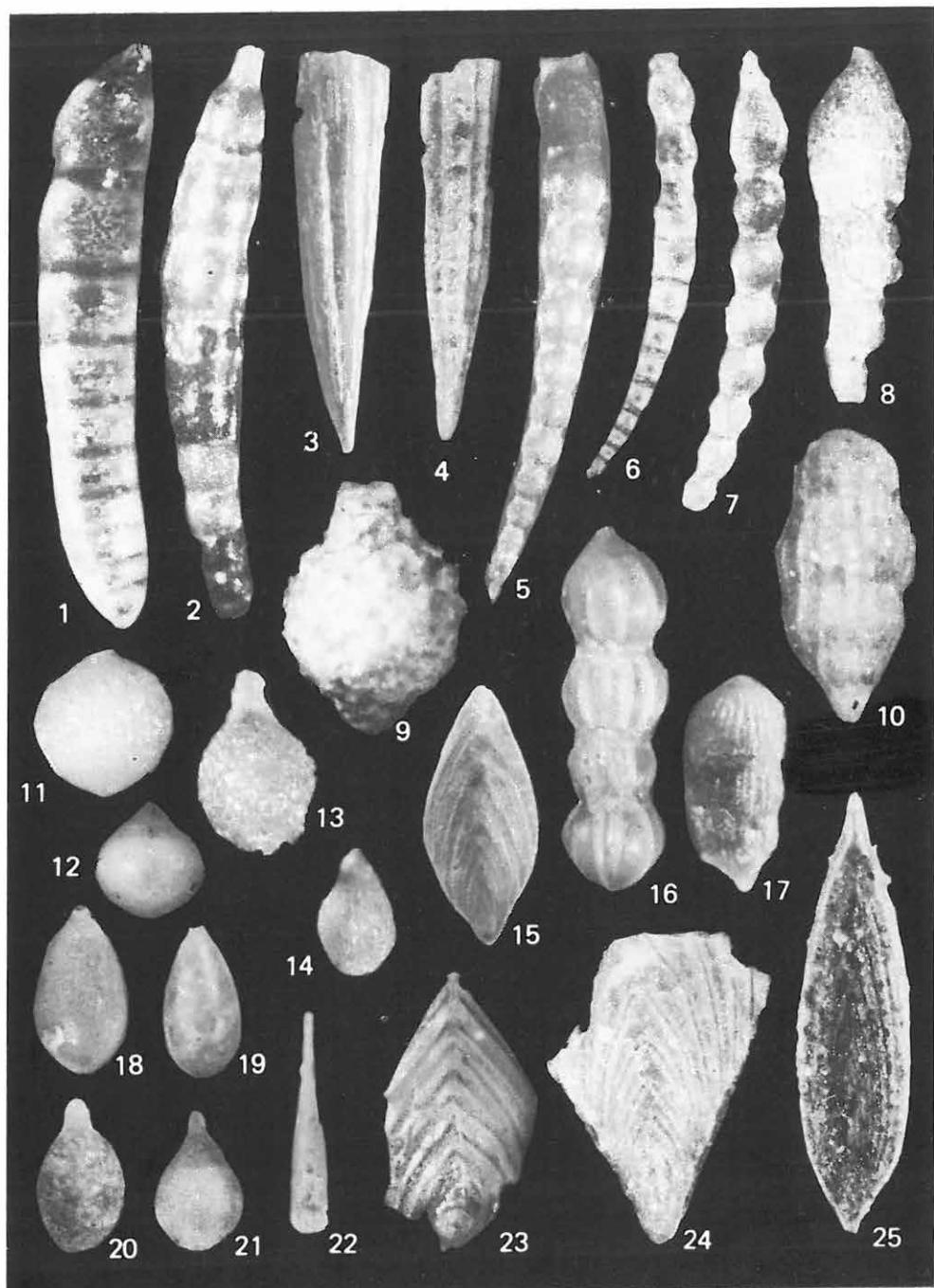
1. *Nodosaria bactridium* REUSS 45×
Berkenye 3. sz. f. 28,0—30,0 m
2. *Nodosaria latejugata* GÜMBEL 45×
Márianosztra 3. sz. f. 78,0—80,0 m
3. *Nodosaria bactridium* REUSS 45×
Berkenye 3. sz. f. 62,0—64,0 m
4. *Nodosaria kugleri* SILVESTRI 15×
Berkenye 4. sz. f. 70,0—72,0 m
- 5—6. *Stilosomella hoernesi* (HANTKEN) 5: 60×, 6: 39,5×
Berkenye 4. sz. f. 86,0—88,0 m
7. *Amphicoryna tunicata* (HANTKEN) 65×
Márianosztra 3. sz. f. 47,0—48,6 m
8. *Stilosomella adolphina* (D'ORBIGNY) 65×
Nógrád 5. sz. f. 49,3—52,0 m
9. *Lagenonodosaria scalaris* (BATSCH) 65×
Berkenye 3. sz. f. 86,0—88,0 m
10. *Lagenonodosaria scalaris* (BATSCH) 65×
Berkenye 3. sz. f. 72,0—74,0 m
11. *Dentalina* sp. 65×
Berkenye 3. sz. f. 58,0—60,0 m
12. *Stilosomella pauperata* (D'ORBIGNY) 45×
Márianosztra 3. sz. f. 84,0—86,0 m
13. *Dentalina filiformis* (D'ORBIGNY) 45×
Márianosztra 3. sz. f. 71,0—74,0 m
14. *Nodosaria acuminata* HANTKEN 15×
Berkenye 4. sz. f. 56,0—58,0 m
15. *Dentalina acuta* D'ORBIGNY 45×
Márianosztra 3. sz. f. 71,0—74,0 m
16. *Chrysalonium wicksburgense* TODD 45×
Márianosztra 3. sz. f. 71,0—74,0 m
17. *Chrysalonium wicksburgense* TODD 45×
Berkenye 4. sz. f. 76,0—78,0 m
18. *Dentalina* sp. 45×
Berkenye 1. sz. f. 55,0—56,0 m
19. *Dentalina* aff. *filiformis* (D'ORBIGNY) 45×
Márianosztra 3. sz. f. 69,0—71,0 m



XI. tábla — Plate XI

Oligocén

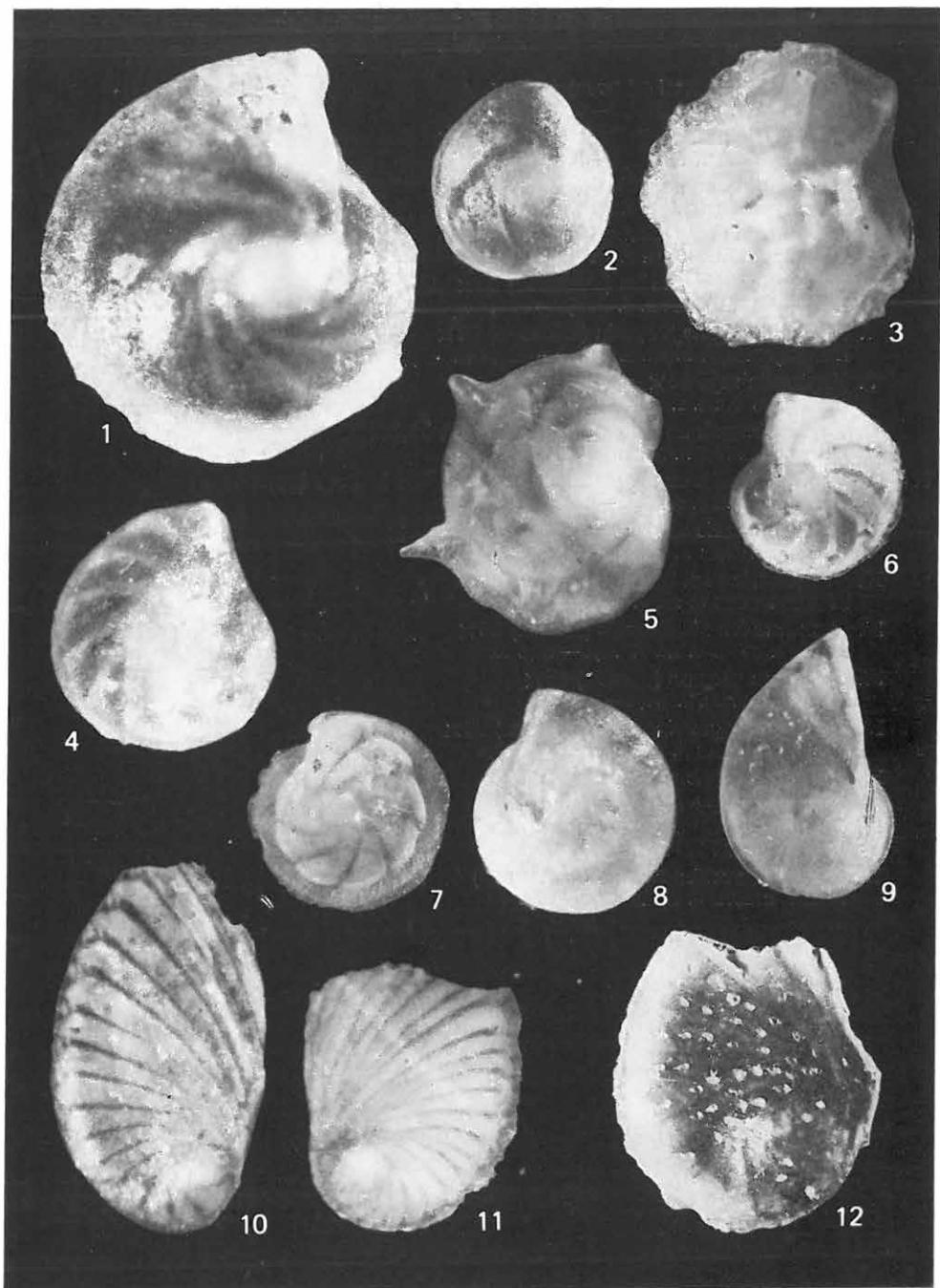
1. *Stilostomella approximata* (REUSS) 65×
Drégelypalánk 2. sz. f. 471,0—473,0 m
2. *Stilostomella verneuilii* (d'ORBIGNY) 45×
Berkenye 4. sz. f. 60,0—62,0 m
3. *Dentalina contorta* (HANTKEN) 39,5×
Berkenye 4. sz. f. 36,0—38,0 m
4. *Dentalina contorta* (HANTKEN) 45×
Berkenye 4. sz. f. 38,0—40,0 m
5. *Dentalina filiformis* (d'ORBIGNY) 45×
Drégelypalánk 2. sz. f. 420,0—422,0 m
6. *Stilostomella elegans* (d'ORBIGNY) 45×
Drégelypalánk 2. sz. f. 462,0—464,0 m
7. *Dentalina filiformis* (d'ORBIGNY) 45×
Márianosztra 3. sz. f. 71,0—74,0 m
8. *Dentalina debilis* HANTKEN 65×
Berkenye 3. sz. f. 28,0—30,0 m
9. *Lagena asperula* REUSS 65×
Drégelypalánk 2. sz. f. 471,0—473,0 m
10. *Dentalina vásárhelyii* HANTKEN 65×
Drégelypalánk 2. sz. f. 377,0—379,0 m
11. *Lagena sulcata* (WALKER et JACOB) 65×
Berkenye 4. sz. f. 84,0—86,0 m
12. *Lagena* sp. 65×
Berkenye 1. sz. f. 55,0—56,0 m
13. *Lagena hispida* REUSS 65×
Berkenye 4. sz. f. 34,0—36,0 m
14. *Lagena isabella* (d'ORBIGNY) 46×
Berkenye 4. sz. f. 74,0—76,0 m
15. *Frondicularia* sp. 22,5×
Berkenye 4. sz. f. 78,0—80,0 m
16. *Dentalina bifurcata* d'ORBIGNY 17×
Drégelypalánk 2. sz. f. 475,0—477,0 m
17. *Dentalina vásárhelyii* HANTKEN 29×
Berkenye 4. sz. f. 80,0—82,0 m
- 18., 20. *Lagena* sp. 10×
Márianosztra 3. sz. f. 80,0—82,0 m
- 19., 21—22. *Lagena* sp. 10×
Berkenye 4. sz. f. 34,0—36,0 m
23. *Frondicularia superba* HANTKEN 15×
Drégelypalánk 2. sz. f. 479,0—481,0 m
24. *Frondicularia budensis* HANTKEN 65×
Nógrád 5. sz. f. 21,5—24,0 m
25. *Frondicularia tenuissima* HANTKEN 45×
Szendehely 2. sz. f. 16,3—16,7 m



XII. tábla — Plate XII

Oligocén

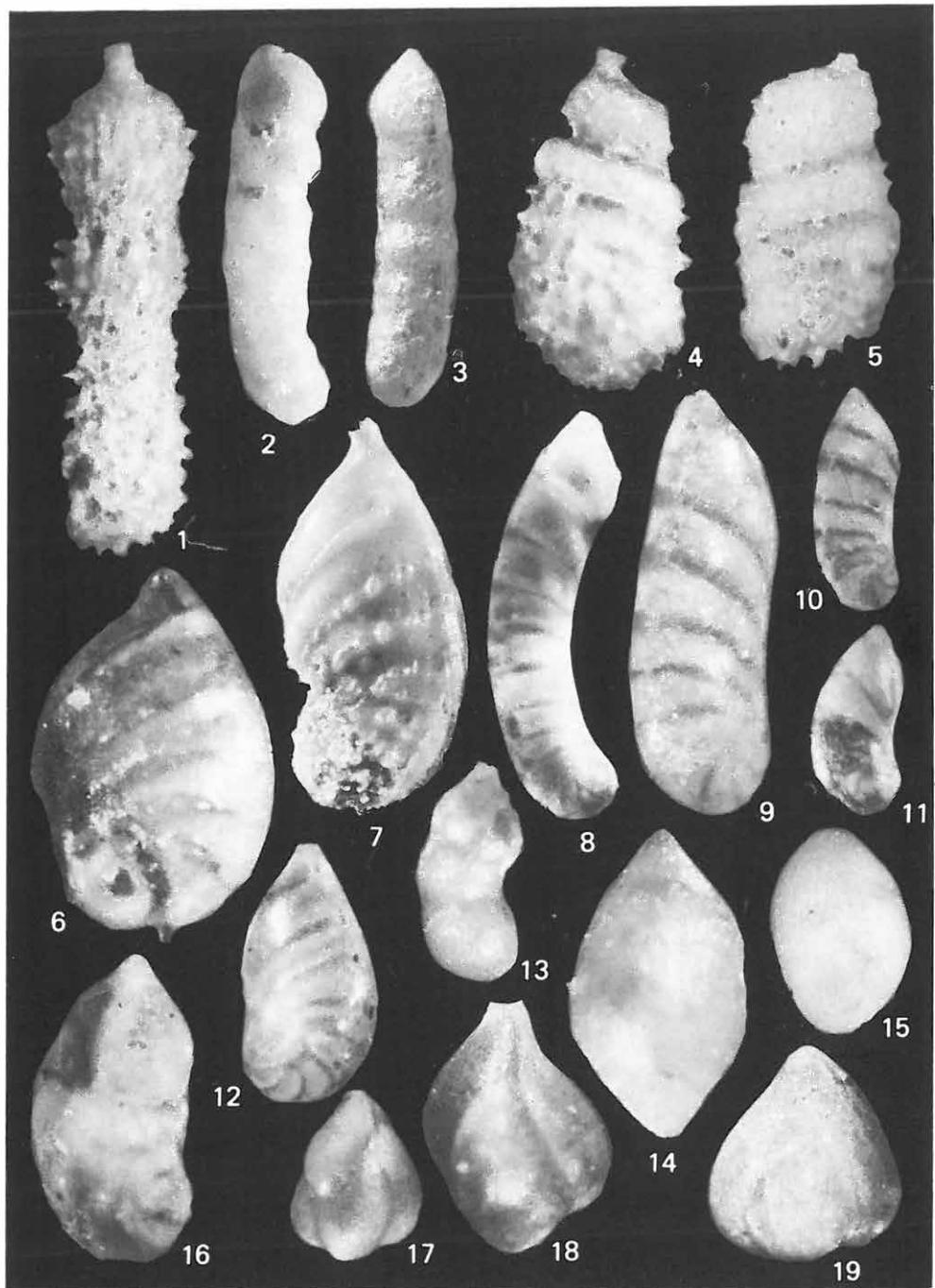
1. *Lenticulina arcuatostriata* (HANTKEN) 45×
Márianosztra 3. sz. f. 91,0—93,0 m
2. *Lenticulina arcuatostriata* (HANTKEN) 22,7×
Berkenye 4. sz. f. 78,0—80,0 m
3. *Lenticulina budensis* (HANTKEN) 65×
Drégelypalánk 2. sz. f. 479,0—481,3 m
4. *Lenticulina inornata* (d'ORBIGNY) 65×
Márianosztra 3. sz. f. 93,0—97,0 m
5. *Lenticulina calcar* (LINNE) 65×
Drégelypalánk 2. sz. f. 426,0—428,0 m
6. *Lenticulina limbosa* (REUSS) 45×
Márianosztra 3. sz. f. 80,0—82,0 m
7. *Lenticulina cultrata* (MONTFORT) 65×
Drégelypalánk 2. sz. f. 452,0—454,0 m
8. *Lenticulina cultrata* (MONTFORT) 45×
Márianosztra 3. sz. f. 93,0—97,0 m
9. *Planularia kubinyii* (HANTKEN) 17,5×
Berkenye 4. sz. f. 80,0—82,0 m
- 10—11. *Planularia nummulitica* (HANTKEN) 15×
Drégelypalánk 2. sz. f. 479,0—481,3 m
12. *Planularia kubinyii* (HANTKEN) 15×
Berkenye 4. sz. f. 36,0—38,0 m



XIII. tábla — Plate XIII
Oligocén

1. *Marginulina behmi* (REUSS) 19,5 ×
Berkenye 4. sz. f. 156,0—158,0 m
- 2—3. *Marginulina cf. digitalis* (BANDY) 19,5 ×
Berkenye 4. sz. f. 156,0—158,0 m
4. *Marginulina ex gr. behmi* (REUSS) 65 ×
Drégelypalánk 2. sz. f. 414,0—416,0 m
5. *Marginulina ex gr. behmi* (REUSS) 65 ×
Drégelypalánk 2. sz. f. 416,0—418,0 m
6. *Vaginulinopsis gladius* (PHILIPPI) 27 ×
Drégelypalánk 2. sz. f. 462,0—464,0 m
7. *Marginulinopsis fragaria* (GÜMBEL) 45 ×
Drégelypalánk 2. sz. f. 414,0—416,0 m
8. *Vaginulina* sp. 65 ×
Berkenye 3. sz. f. 26,5—28,0 m
9. *Vaginulinopsis ex gr. gladius* (PHILIPPI) 19,5 ×
Drégelypalánk 2. sz. f. 450,0—452,0 m
- 10—11. *Vaginulinopsis ex gr. gladius* (PHILIPPI) 10: 19,5 ×, 11: 65 ×
Berkenye 4. sz. f. 62,0—64,0 m
12. *Vaginulinopsis ex gr. gladius* (PHILIPPI) 65 ×
Drégelypalánk 2. sz. f. 450,0—452,0 m
13. *Marginulina subbulata* HANTKEN 65 ×
Márianosztra 3. sz. f. 82,0—84,0 m
14. *Pseudonodosaria discreta* (REUSS) 65 ×
Márianosztra 3. sz. f. 76,0—78,0 m
15. *Globulina granosa* (EGGER) 65 ×
Diósjenő 4. sz. f. 27,3—30,0 m
16. *Saracenaria propinqua* (HANTKEN) 65 ×
Drégelypalánk 2. sz. f. 414,0—416,0 m
17. *Guttulina problema* d'ORBIGNY 30 ×
Berkenye 4. sz. f. 62,0—64,0 m
18. *Guttulina problema* d'ORBIGNY 45 ×
Márianosztra 3. sz. f. 93,0—97,0 m
19. *Guttulina problema deltoidea* (REUSS) 45 ×
Márianosztra 3. sz. f. 89,0—91,0 m

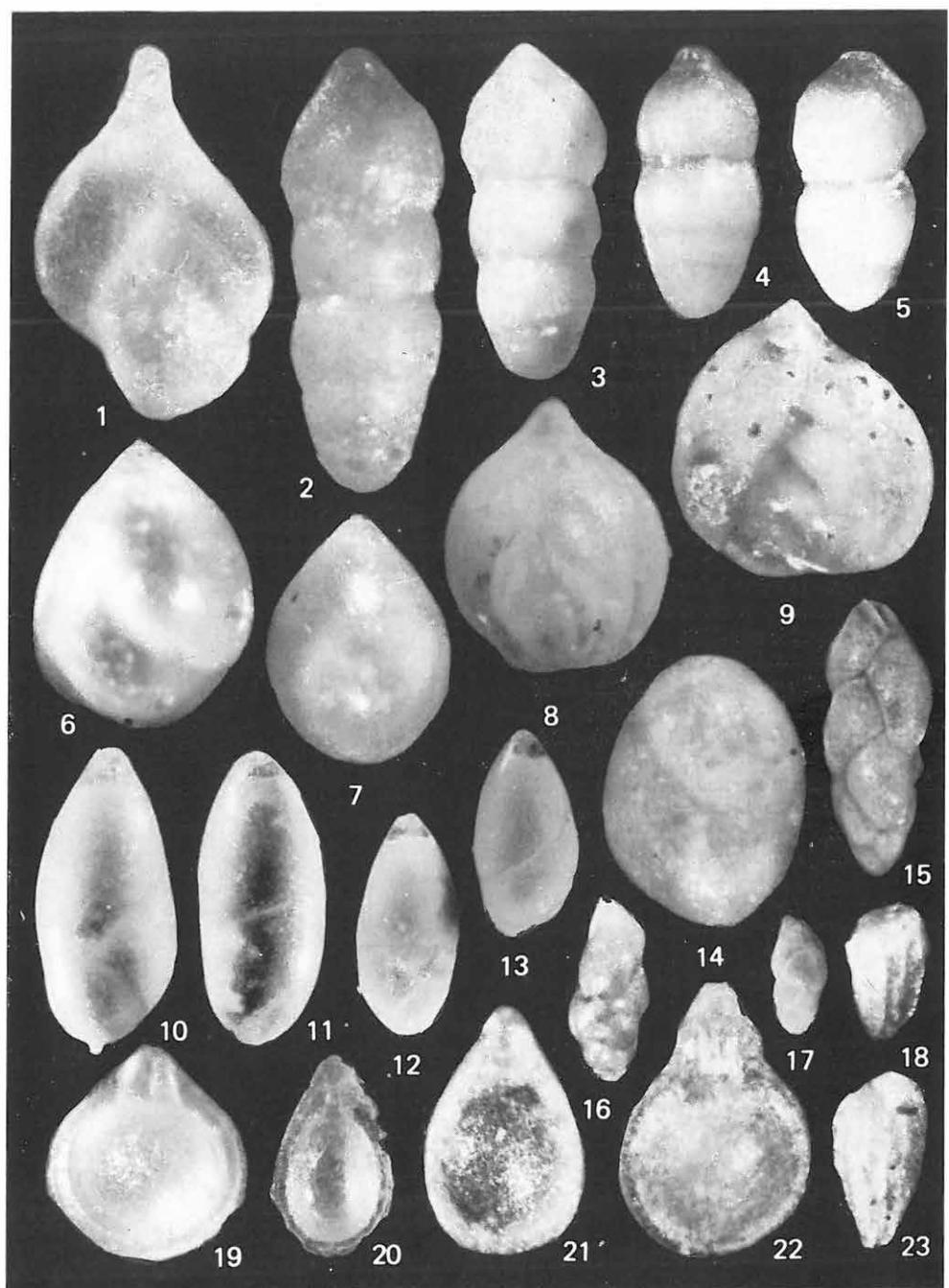
Saracenaria (REUSS)



XIV. tábla — Plate XIV

Oligocén

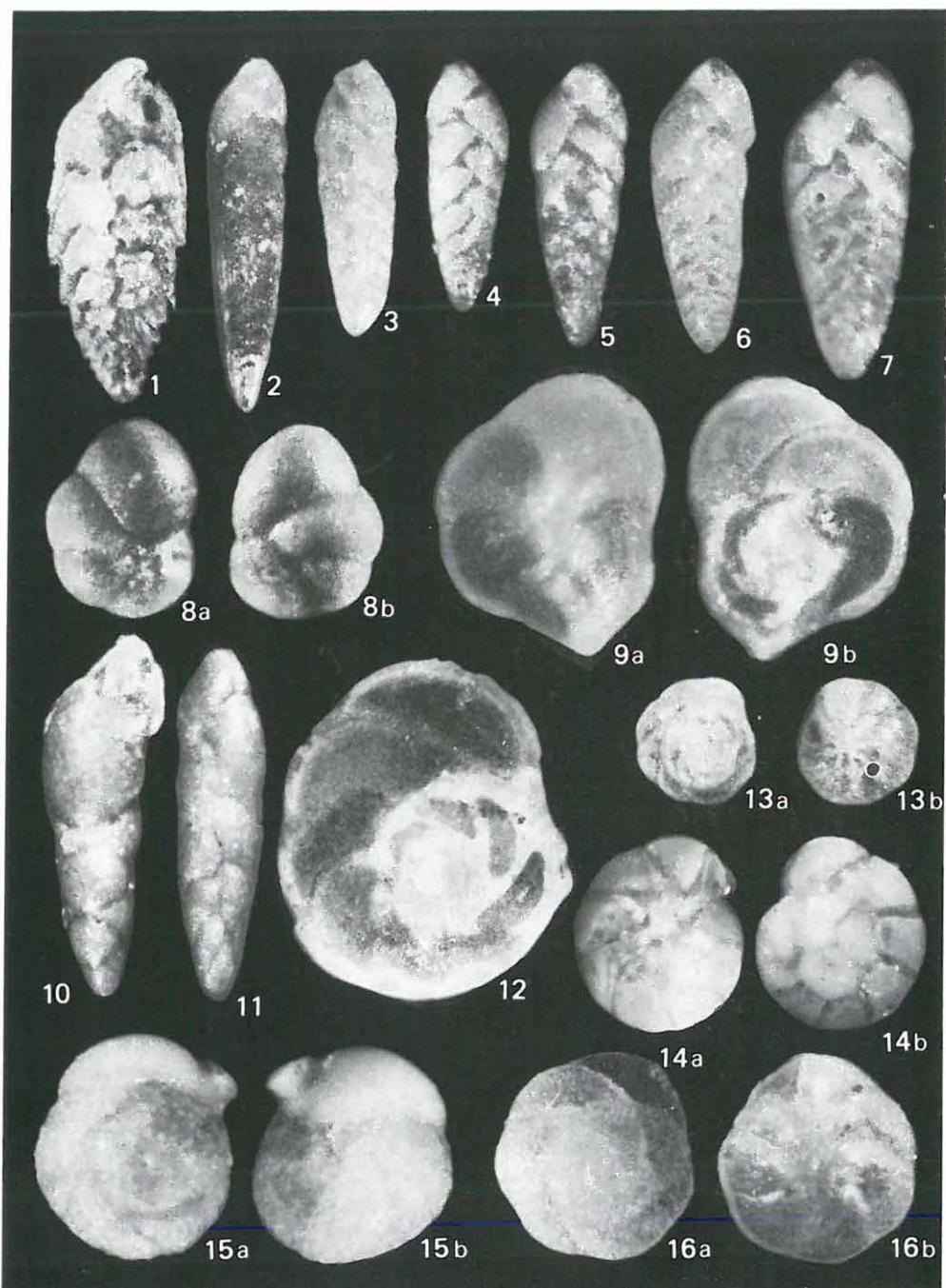
1. *Guttulina* aff. *problema* d'ORBIGNY 65×
Márianosztra 3. sz. f. 93,0—97,0 m
2. *Nodosaria radicula* (LINNE) 65×
Márianosztra 3. sz. f. 78,0—80,0 m
3. *Nodosaria radicula* (LINNE) 45×
Márianosztra 3. sz. f. 80,0—82,0 m
- 4—5. *Nodosaria radicula* (LINNE) 65×
Márianosztra 3. sz. f. 76,0—78,0 m
6. *Globulina gibba* d'ORBIGNY 65×
Drégelypalánk 2. sz. f. 462,0—464,0 m
7. *Globulina gibba* d'ORBIGNY 65×
Márianosztra 3. sz. f. 80,0—82,0 m
8. *Sigmomorphina* sp. 48,8×
Nógrád 5. sz. f. 45,0—47,0 m
9. *Sigmomorphina anceps* (PHILIPPI) 65×
Drégelypalánk 2. sz. f. 377,0—379,0 m
- 10—13. *Polymorphina sororia* var. *cuspidata* BRADY 41×
Diósjenő 6. sz. f. 134,0—135,8 m
14. *Globulina amigdaloides* REUSS 65×
Márianosztra 14. sz. f. 442,5 m
15. *Caucasina elongata* (d'ORBIGNY) 65×
Drégelypalánk 2. sz. f. 442,0—444,0 m
16. *Caucasina oligocenica* CHALILOV 65×
Berkenyé 3. sz. f. 30,0—32,3 m
17. *Caucasina oligocenica* CHALILOV 45× *caeca* → *schistosa*
Drégelypalánk 2. sz. f. 462,0—464,0 m
18. *Bulimina truncana* GÜMBEL 65× *= buliminoides* → *sp.*
Berkenyé 3. sz. f. 28,0—30,0 m
19. *Oolina orbigniana* (SEGUENZA) 65×
Márianosztra 3. sz. f. 97,0—99,0 m
20. *Oolina* sp. 46×
Berkenyé 4. sz. f. 84,0—86,0 m
21. *Oolina* sp. 65×
Berkenyé 3. sz. f. 78,0—80,0 m
22. *Oolina orbigniana* (SEGUENZA) 65×
Márianosztra 3. sz. f. 47,0—48,6 m
23. *Bulimina truncana* GÜMBEL 65×
Berkenyé 3. sz. f. 46,0—48,5 m



XV. tábla — Plate XV

Oligocén

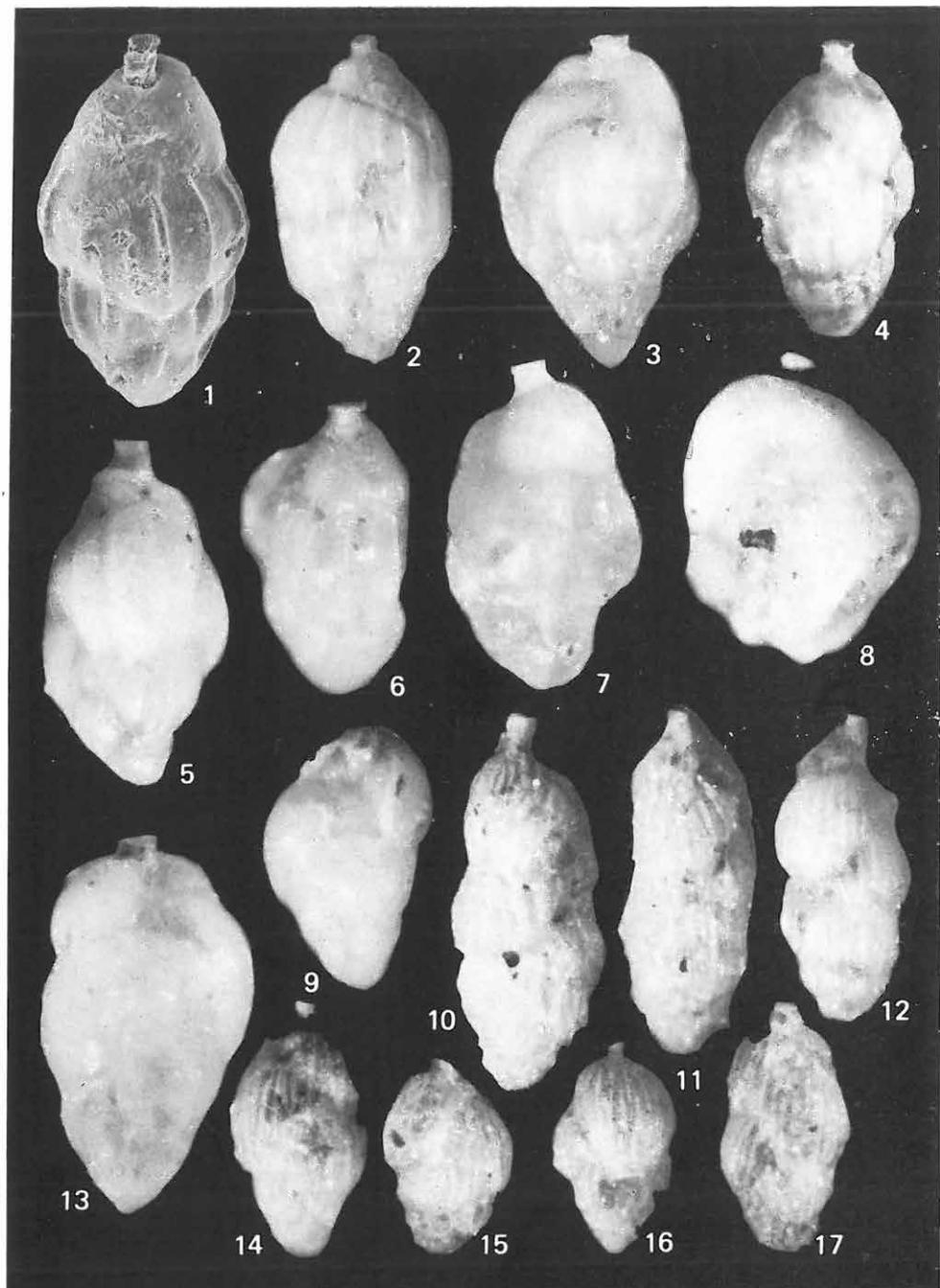
1. *Bolivina beyrichii* REUSS 65×
Drégelypalánk 2. sz. f. 420,0—422,0 m
2. *Bolivina semistriata* HANTKEN 45×
Berkenyé 4. sz. f. 4,0—5,0 m
3. *Bolivina antiqua* D'ORBIGNY 65×
Diósjenő 4. sz. f. 13,9—15,8 m
4. *Bolivina liebusi* HOFMANN 65×
Márianosztra 3. sz. f. 89,0—91,0 m
5. *Bolivina liebusi* HOFMANN 65×
Márianosztra 3. sz. f. 47,0—48,6 m
6. *Bolivina liebusi* HOFMANN 65×
Drégelypalánk 2. sz. f. 466,0—468,0 m
7. *Bolivina liebusi* HOFMANN 75×
Drégelypalánk 2. sz. f. 479,0—481,0 m
- 8a—b. *Baggina* sp. 45×
Diósjenő 6. sz. f. 134,0—135,8 m
- 9a—b. *Discorbis* sp. 45×
Márianosztra 3. sz. f. 97,0—99,0 m
10. *Furcicoina schreibersiana* (CŽJŽEK) 45×
Berkenyé 4. sz. f. 76,0—78,0 m
11. *Furcicoina schreibersiana* (CŽJŽEK) 45×
Berkenyé 3. sz. f. 82,0—84,0 m
12. *Discorbis* sp. 45×
Márianosztra 3. sz. f. 97,0—99,0 m
- 13a—b. *Rotalia propinqua* ROEMER 65×
Nógrád 2. sz. f. 81,50—83,0 m
- 14a—b. *Ammonia beccarii* (LINNE) 65×
Berkenyé 4. sz. f. 46,0—48,5 m
- 15a—b. *Siphonina reticulata* (CŽJŽEK) 65×
Berkenyé 4. sz. f. 12,0—13,0 m
- 16a—b. *Rotalia propinqua* ROEMER 65×
Diósjenő 6. sz. f. 126,0—128,0 m



XVI. tábla — Plate XVI

Oligocén

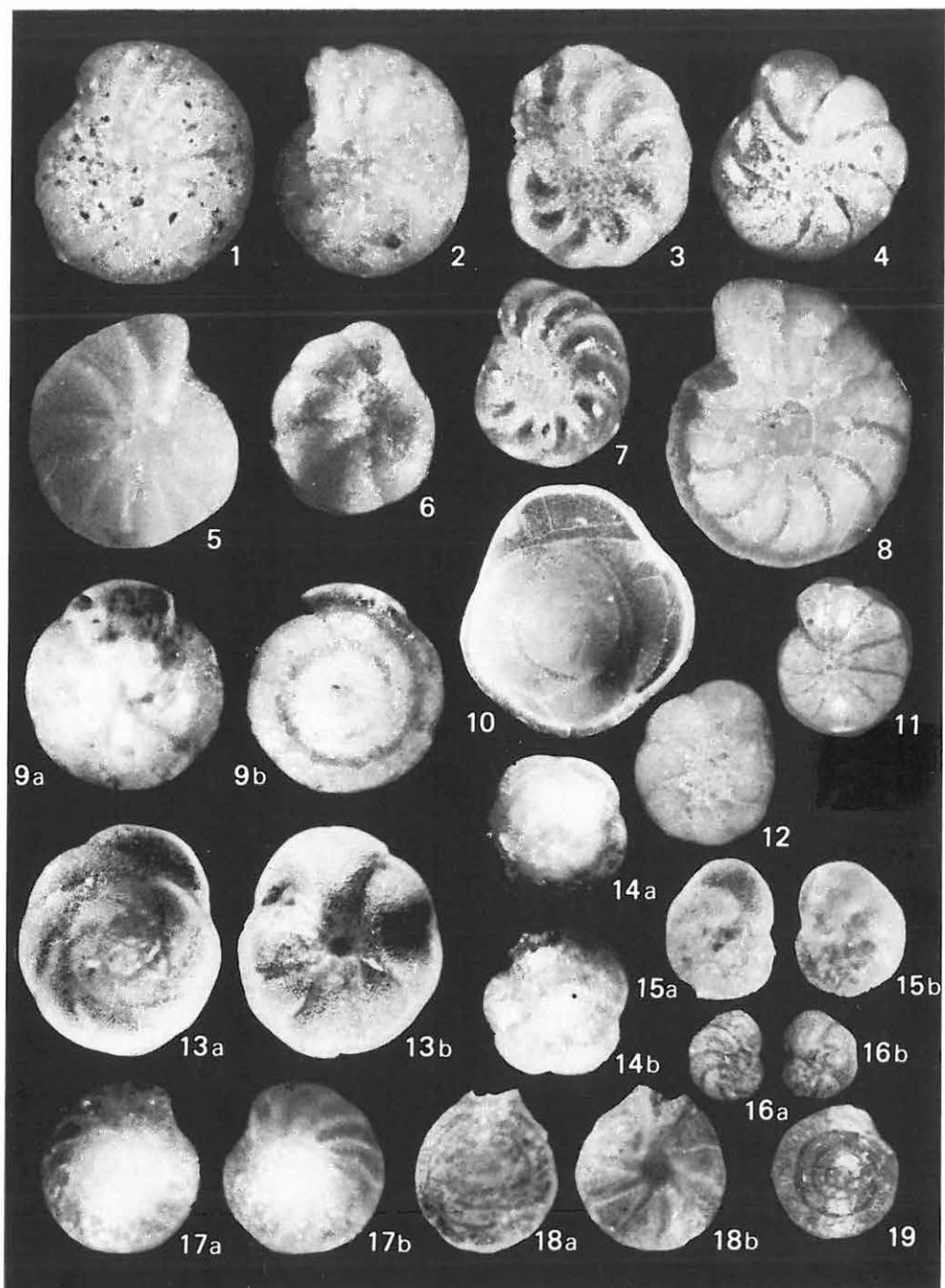
1. *Uvigerina hantkeni* CUSHMAN et EDWARDS (SEM) 83×
Drégelypalánk 2. sz. f. 367,0—448,0 m
- 2—4. *Uvigerina hantkeni* CUSHMAN et EDWARDS 75×
Drégelypalánk 2. sz. f. 420,0—422,0 m
- 5—8. *Uvigerina gallowayi* CUSHMAN 75×
Drégelypalánk 2. sz. f. 404,0—406,0 m
- 9., 13. *Uvigerina rudlingensis* PAPP 75×
Drégelypalánk 2. sz. f. 379,0—381,0 m
- 10—12., 14—17. *Uvigerina ex gr. steyri* PAPP 75×
Drégelypalánk 2. sz. f. 365,0—367,0 m



XVII. tábla — Plate XVII

Oligocén

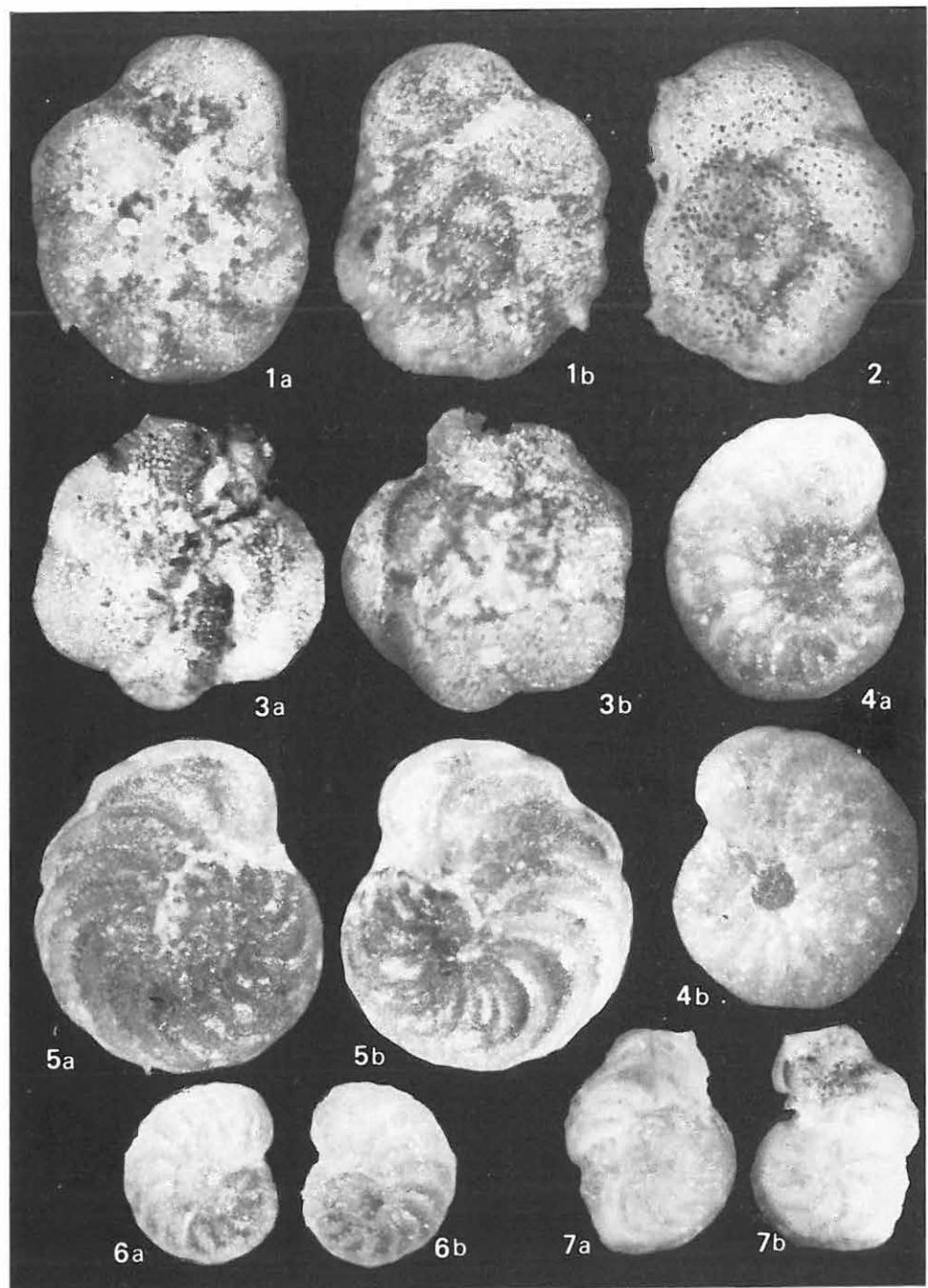
1. *Elphidium* sp. 54×
Nógrád 2. sz. f. 87,80—90,0 m
2. *Elphidium* sp. 54×
Nógrád 2. sz. f. 83,0—86,0 m
3. *Florilus buxovillans* (ANDREAE) 54×
Diósjenő 6. sz. f. 104,0—106,0 m
4. *Protelphidium* sp. 65×
Márianosztra 14. sz. f. 335,50 m
5. *Cribrononion minutum* (REUSS) 54×
Diósjenő 6. sz. f. 134,0—135,8 m
6. *Cribrononion* sp. 57×
Diósjenő 6. sz. f. 134,0—135,8 m
7. *Florilus buxovillans* (ANDREAE) 65×
Nógrád 2. sz. f. 81,5—83,0 m
8. *Cribrononion* sp. 11,3×
Diósjenő 4. sz. f. 85,0—87,0 m
- 9a—b. *Eponides umbonatus* (REUSS) 65×
Nógrád 5. sz. f. 54,0—55,1 m
10. *Eponides budensis* (HANTKEN) 65×
Drégelypalánk 2. sz. f. 473,0—475,0 m
11. *Cribrononion falunicum* (ALLIX) 32×
Márianosztra 14. sz. f. 356,0 m
12. *Protelphidium subgranosum* (EGGER) 65×
Márianosztra 14. sz. f. 329,50 m
- 13a—b. *Neoponides schreibersii* (d'ORBIGNY) 65×
Drégelypalánk 2. sz. f. 466,0—468,0 m
- 14a—b. *Eponides umbonatus* (REUSS) 65×
Berkenye 1. sz. f. 44,0—45,0 m
- 15a—b. *Valvularia complanata* (d'ORBIGNY) 65×
Berkenye 4. sz. f. 84,0—86,0 m
- 16a—b. *Valvularia complanata* (d'ORBIGNY) 65×
Berkenye 4. sz. f. 88,0—90,0 m
- 17a—b. *Cibicides tenellus* (REUSS) 65×
Márianosztra 3. sz. f. 76,0—78,0 m
- 18a—b—19. *Cibicidoides pygmaeus* (HANTKEN) 18.: 32×, 19.: 65×
Berkenye 4. sz. f. 44,0—46,0 m



XVIII. tábla — Plate XVIII

Oligocén

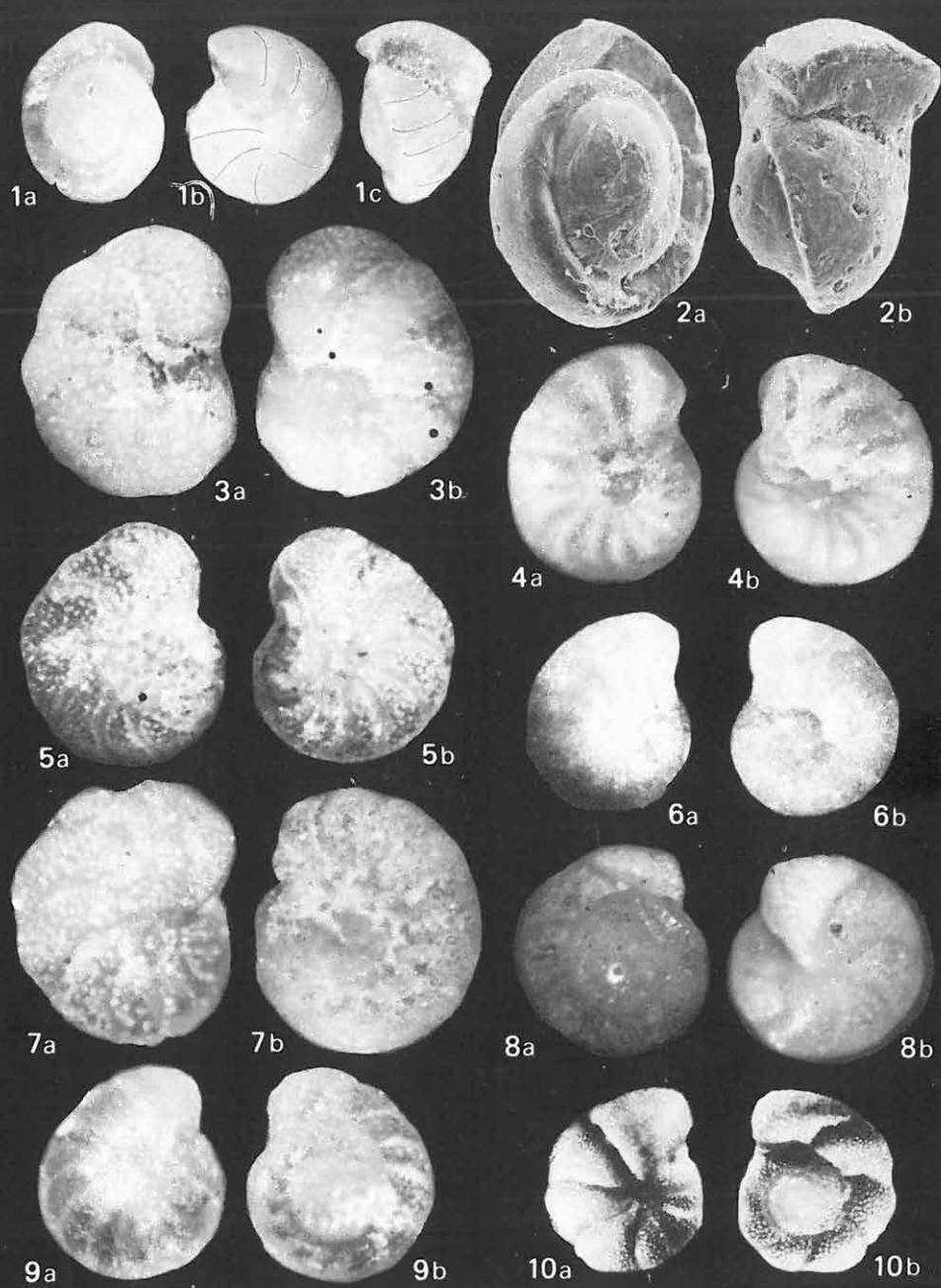
- 1a—b. *Planulina ambigua* (FRANZENAU) 65×
Drégelypalánk 2. sz. f. 442,0—444,0 m
2. *Planulina ambigua* (FRANZENAU) 65×
Drégelypalánk 2. sz. f. 440,0—442,0 m
- 3a—b. *Planulina lobatula* (HANTKEN) 65×
Nógrád 5. sz. f. 42,0 m
- 4a—b. *Anomalina cryptomphala* (REUSS) 65×
Márianosztra 3. sz. f. 80,0—82,0 m
- 5a—b. *Planulina costata* (HANTKEN) 45×
Márianosztra 3. sz. f. 82,0—84,0 m
- 6a—b. *Planulina compressa* (HANTKEN) 65×
Drégelypalánk 2. sz. f. 377,0—379,0 m
- 7a—b. *Planulina wuellerstorfi* (SCHWAGER) 45×
Márianosztra 3. sz. f. 80,0—82,0 m



XIX. tábla — Plate XIX

Oligocén

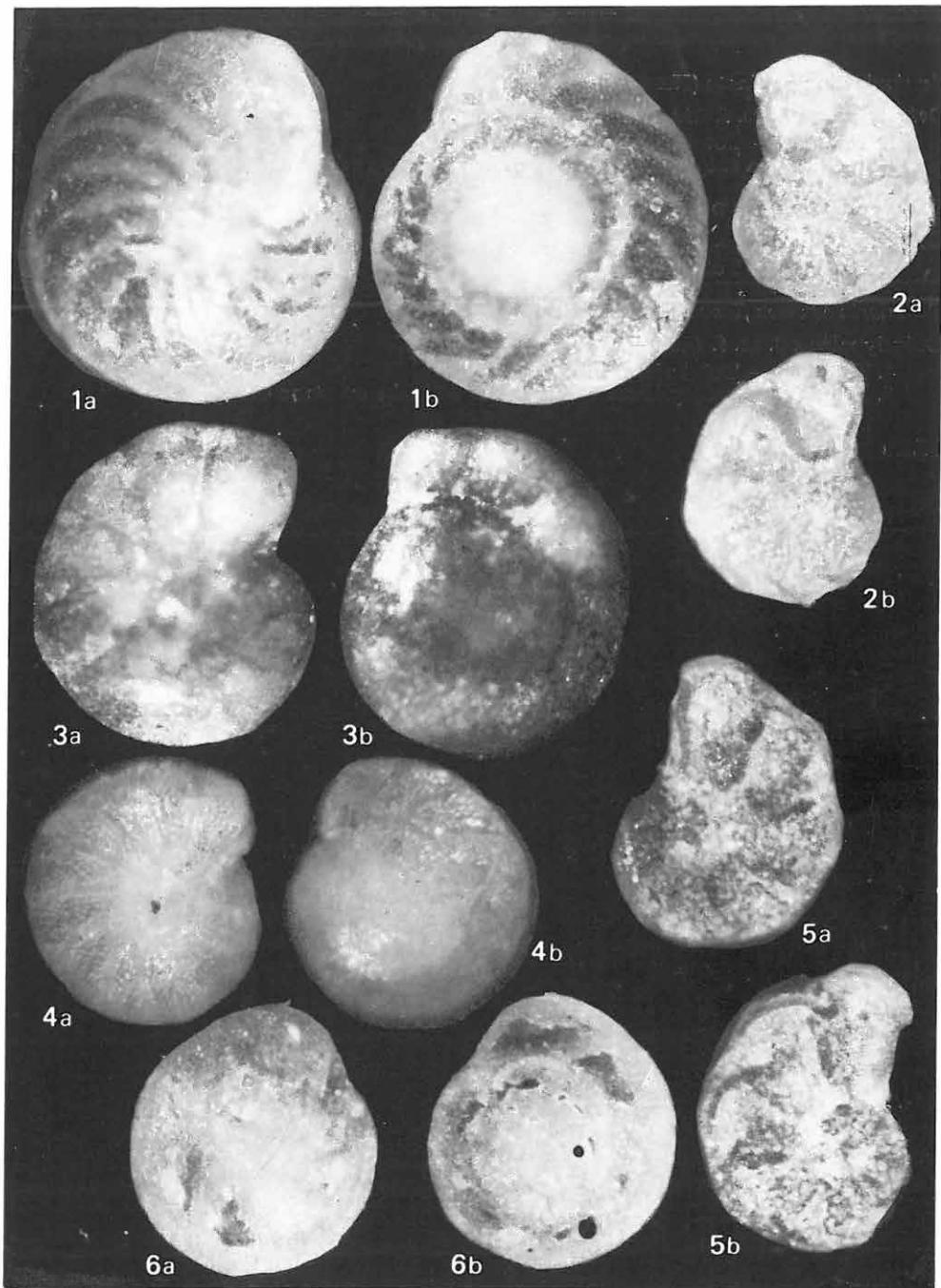
- 1a—c. *Gyroidinoides soldanii* (D'ORBIGNY) 45×
Márianosztra 3. sz. f. 93,0—97,0 m
- 2a—b. *Gyroidinoides soldanii* (D'ORBIGNY) (SEM) 83×
Drégelypalánk 2. sz. f. 383,0—385,0 m
- 3a—b. *Anomalinoides granosus* (HANTKEN) 65×
Drégelypalánk 2. sz. f. 479,0—481,0 m
- 4a—b. *Anomalina cryptomphala* (REUSS) 65×
Márianosztra 3. sz. f. 80,0—82,0 m
- 5a—b. *Cibicidoides ungerianus* (D'ORBIGNY) 65×
Drégelypalánk 2. sz. f. 404,0—406,0 m
- 6a—b. *Anomalina affinis* (HANTKEN) 65×
Márianosztra 3. sz. f. 82,0—84,0 m
- 7a—b. *Cibicidoides ungerianus* (D'ORBIGNY) 65×
Drégelypalánk 2. sz. f. 428,0—430,0 m
- 8a—b. *Heterolepa peelensis* (TEN DAM et REINHOLD) 65×
Drégelypalánk 2. sz. f. 428,0—430,0 m
- 9a—b. *Heterolepa* sp. 65×
Márianosztra 3. sz. f. 93,0—97,0 m
- 10a—b. *Heterolepa simplex* FRANZENAU 32,5×
Diósjenő 6. sz. f. 134,0—135,0 m



XX. tábla — Plate XX

Oligocén

- 1a—b. *Heterolepa bullata* FRANZENAU 45×
Berkenye 4. sz. f. 94,0—96,0 m
- 2a—b. *Almaena osnabrugensis* (ROEMER) 45×
Márianosztra 3. sz. f. 47,0—48,6 m
- 3a—b. *Heterolepa dutemplei* (d'ORBIGNY) 45×
Berkenye 4. sz. f. 70,0—72,0 m
- 4a—b. *Heterolepa dutemplei* (d'ORBIGNY) 75×
Drégelypalánk 2. sz. f. 452,0—454,0 m
- 5a—b. *Almaena osnabrugensis* (ROEMER) 65×
Márianosztra 3. sz. f. 82,0—84,0 m
- 6a—b. *Hoeglundina elegans* (d'ORBIGNY) 65×
Márianosztra 3. sz. f. 80,0—82,0 m



XXI. tábla — Plate XXI

Oligocén

Semivulvulina pectinata (HANTKEN)

Drégelypalánk 2. sz. f. 442,0—444,0 m

1. Totálkép — Total picture 100×

2. Felülnézet a szájnyíllással — Top view with the aperture 150×

Textularia bronniiana d'ORBIGNY

Drégelypalánk 2. sz. f. 426,0—428,0 m

3. Totálkép — Total picture 100×

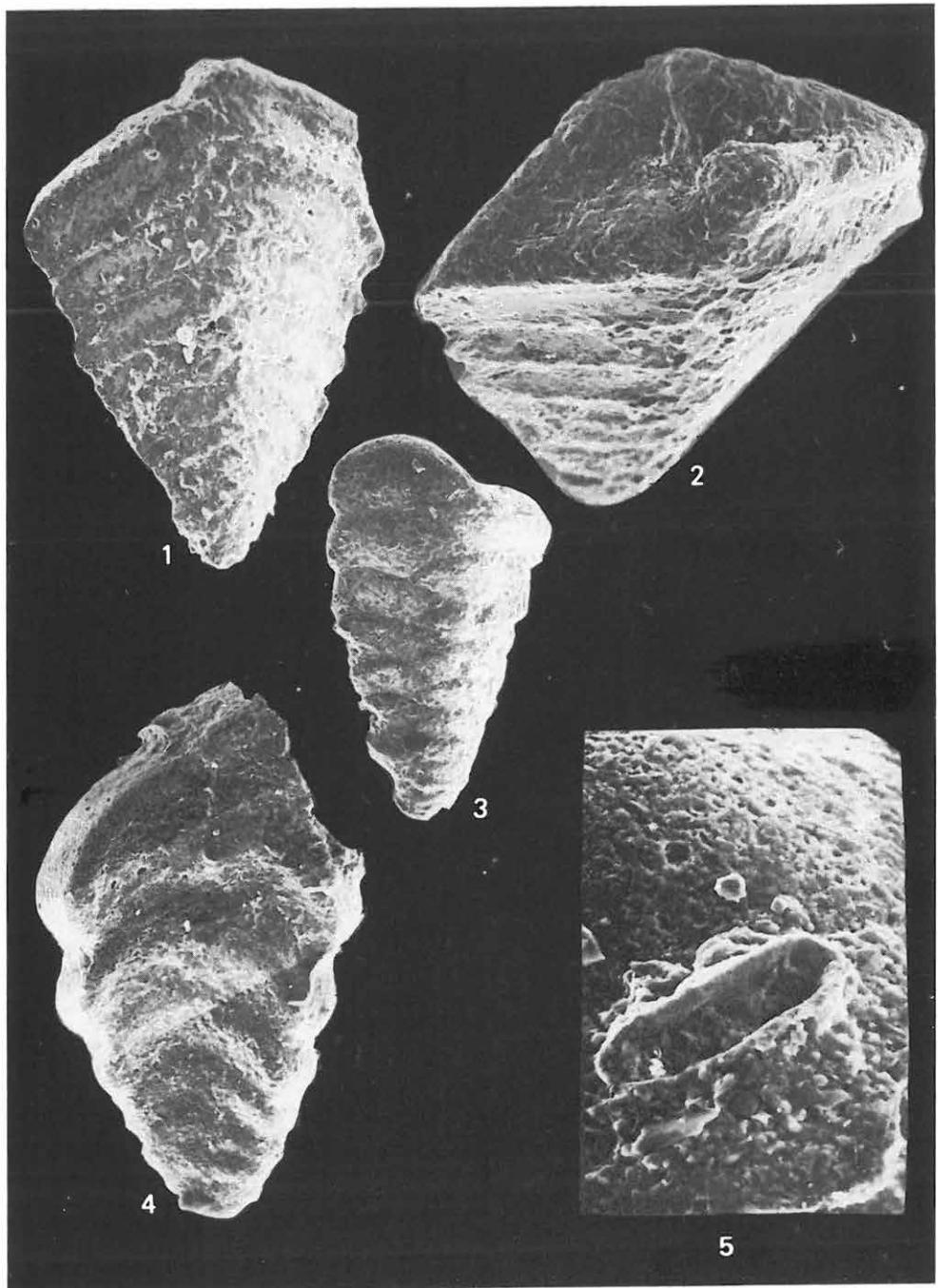
Textularia concava flexua VENGLINSKIJ

Drégelypalánk 2. sz. f. 418,0—420,0 m

4. Totálkép — Total picture 130 ×

5. Felülnézet a szájnyíllással — Top view with the aperture 400×

SEMs



XXII. tábla — Plate XXII

Oligocén

Tritaxia szabói (HANTKEN)

Berkenye 4. sz. f. 32,0—34,0 m

1. Totálkép — Total picture 72×

2. Totálkép, kissé látszik a szájnyílás — Total picture, the aperture slightly visible
100×

4. Szájnyílás felülnézetből — Aperture, top view 400×

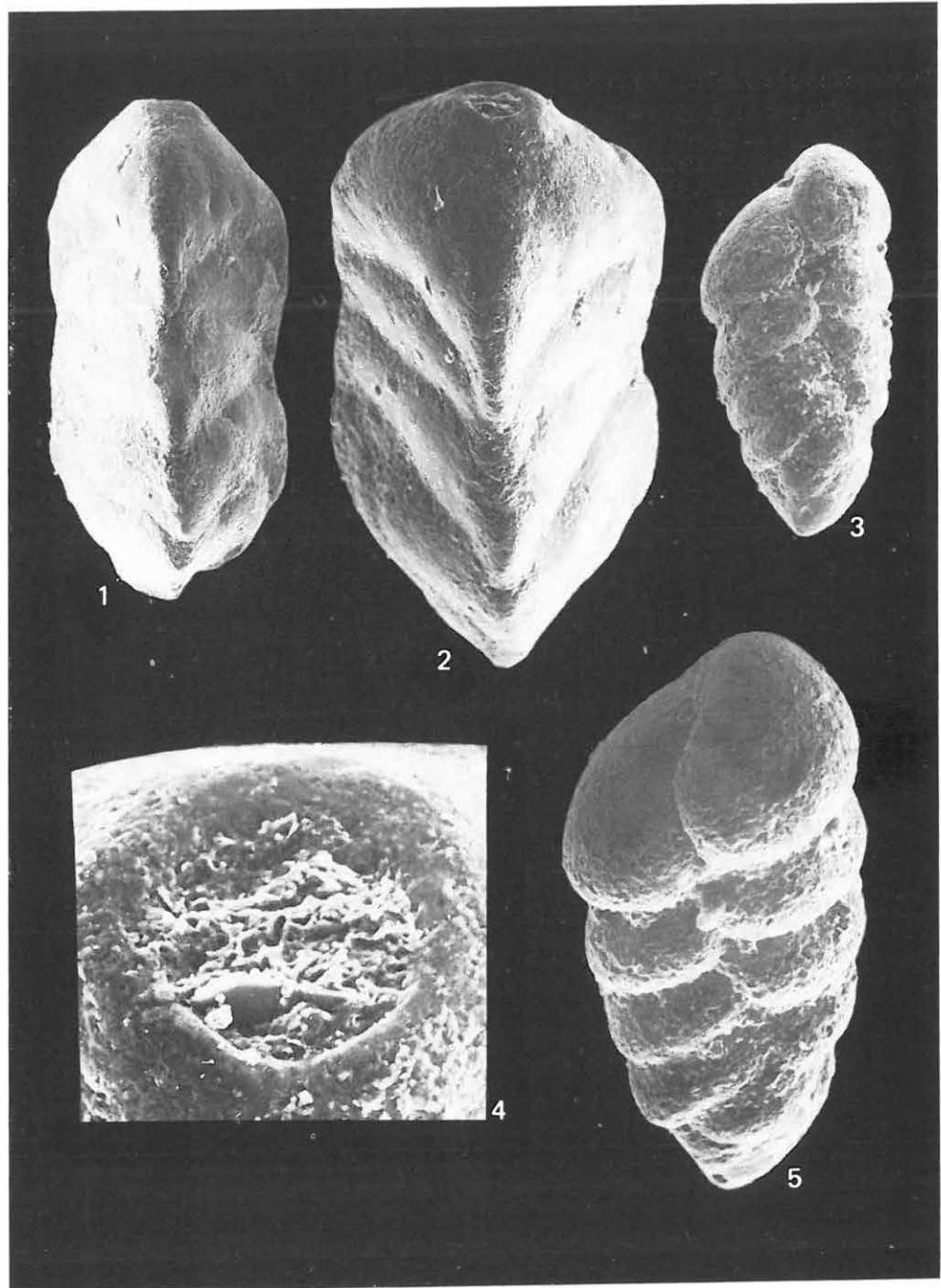
Karreriella chilostoma (REUSS)

Márianosztra 3. sz. f. 74,0—76,0 m

3. Totálkép — Total picture 160×

5. Felülnézet a szájnyílással — Top view with the aperture 400×

SEMs



XXIII. tábla — Plate XXIII

Oligocén

Spiroloculina canaliculata d'ORBIGNY

Drégelypalánk 2. sz. f. 416,0—418,0 m

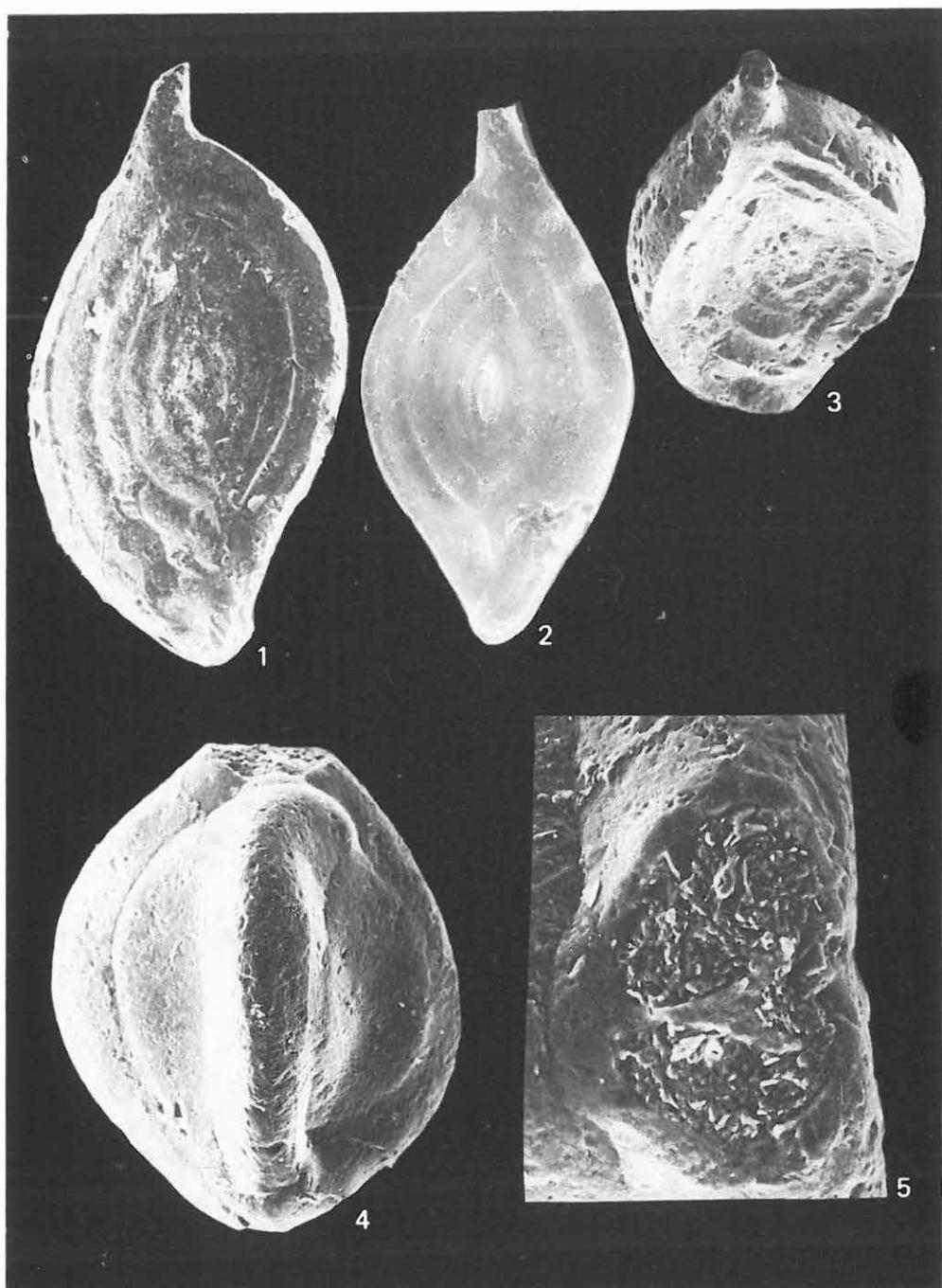
1. Totálkép — Total picture 100×
2. Totálkép (másik példány) — Total picture (another specimen) 100×
3. Az első példány, felülnézet a szájnyílással — First specimen, top view with the aperture 100×

Quinqueloculina sp.

Drégelypalánk 2. sz. f. 418,0—420,0 m

4. Totálkép — Total picture 120×
5. Szájnyílás — The aperture 300×

SEMs



XXIV. tábla — Plate XXIV

Oligocén

Saracenaria propinqua (HANTKEN)

Berkenye 4. sz. f. 25,0—26,0 m

1. Totálkép — Total picture 180×
2. A szájnyílás kinagyítva — The aperture enlarged 1000×
3. Oldalnézet — Lateral view 180×

Stilostomella adolphina (d'ORBIGNY)

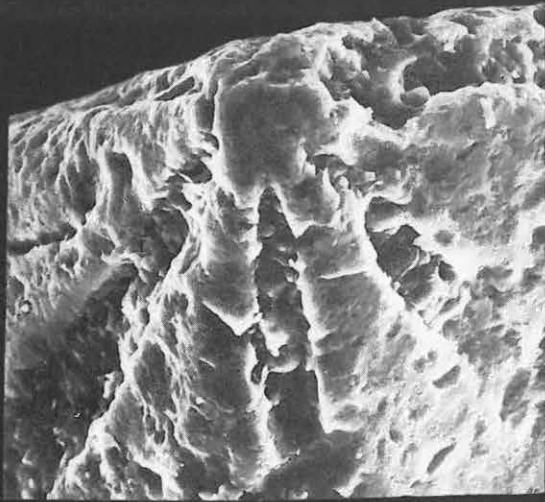
Nógrád 5. sz. f. 49,3—52,0 m

4. Totálkép, törött példány — Total picture, fragmented specimen 100×
5. Kamraválaszfalak tüskés díszítéssel — Suturae with prickled ornamentation 400×

SEMs



1



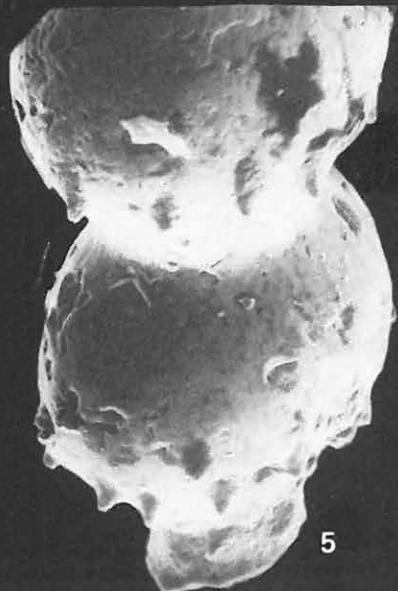
2



3



4



5

XXV. tábla — Plate XXV

Oligocén

Fronticularia budensis HANTKEN

Berkenye 4. sz. f. 7,0–8,0 m

1. Totálkép — Total picture 100×
2. Bordázott kezdlókamrák — Ripped early chambers 600×

Frondicularia tenuissima HANTKEN

Szendehely 2. sz. f. 16,3–16,7 m

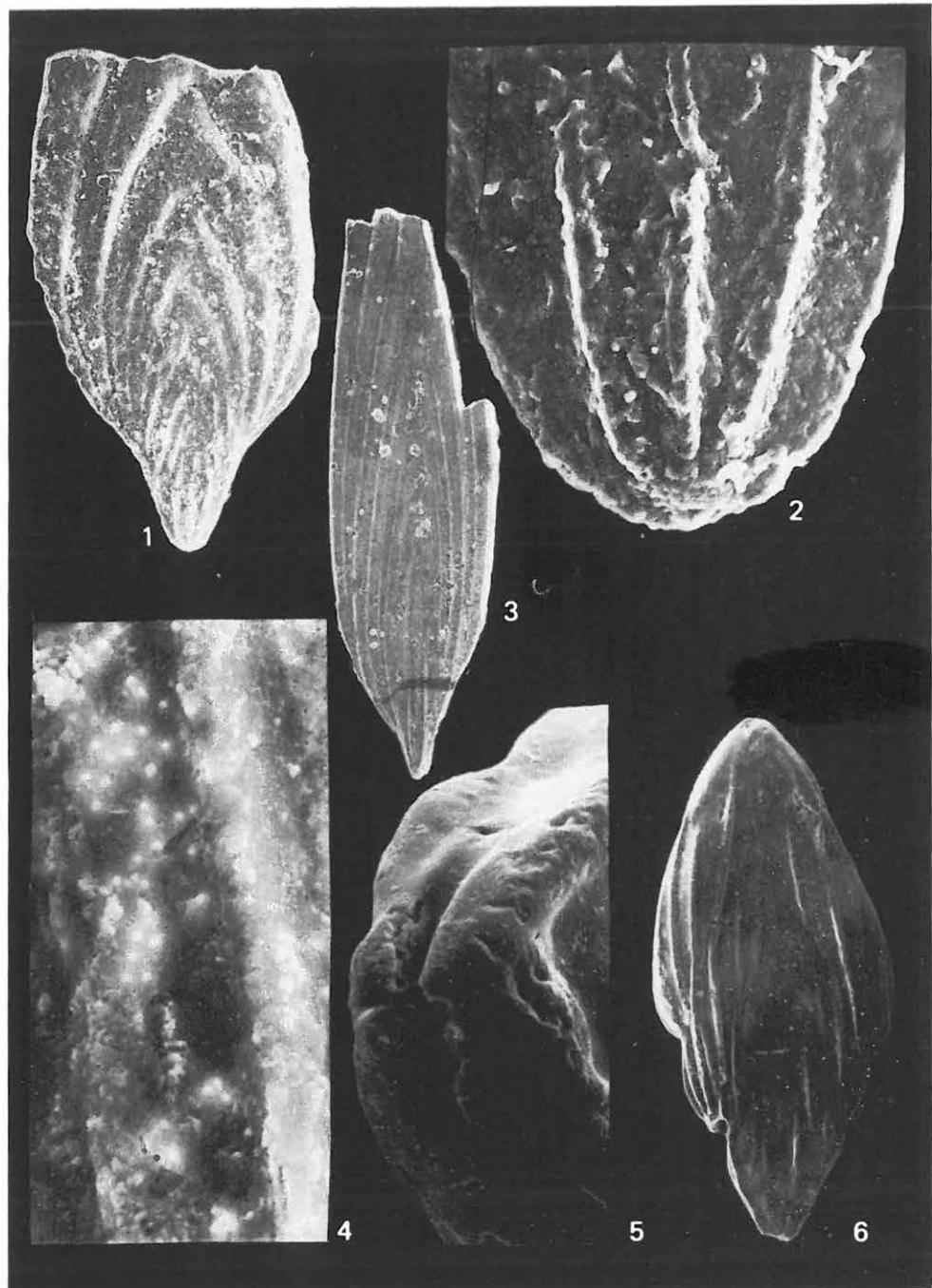
3. Totálkép — Total picture 100×

Lankesterina advena (CUSHMAN)

Drégelypalánk 2. sz. f. 420,0–422,0 m

4. Perforált bordaközti rész — Perforated space between the ribs 2000×
5. Felülnézet a szájnyílással — Top view with the aperture 600×
6. Totálkép — Total picture 150×

SEMs



XXVI. tábla — Plate XXVI

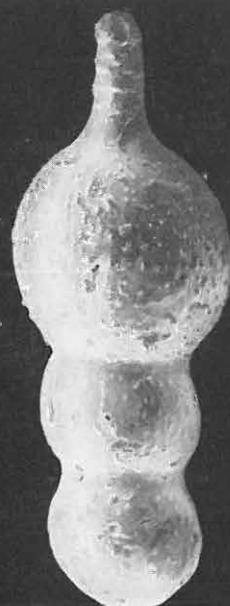
Oligocén

Nodosaria sp.

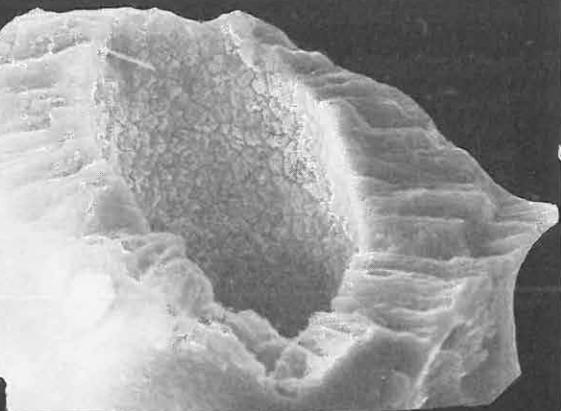
Drégelypalánk 2. sz. f. 408,0–410,0 m

1. Totálkép — Total picture 120×
2. Eltörött nyakrész a falszerkezettel — Broken neck part with wall structure 1500×
3. Felület tüskedíszítéssel — Surface with prickle ornament 2400×
4. Felület tüskedíszítéssel — Surface with prickle ornament 3600×
5. A belső oldal felületi képe barázdákkal — Surface of the ventral side with striae 10 000×

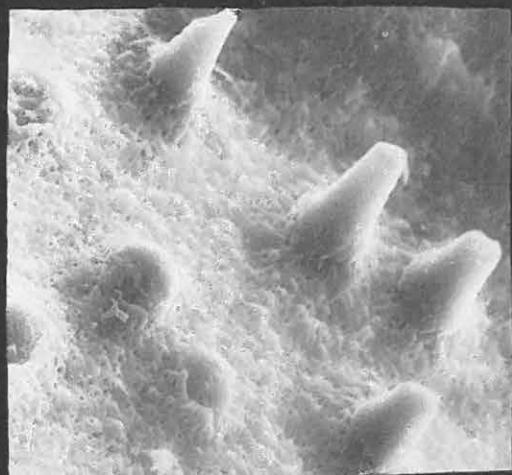
SEMs



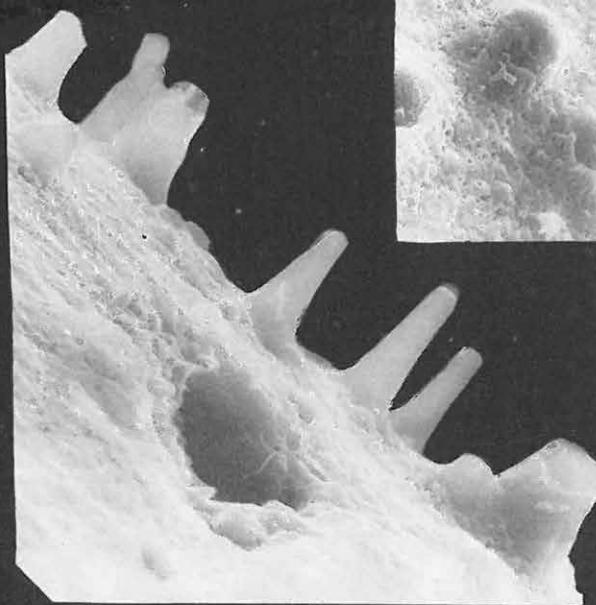
2



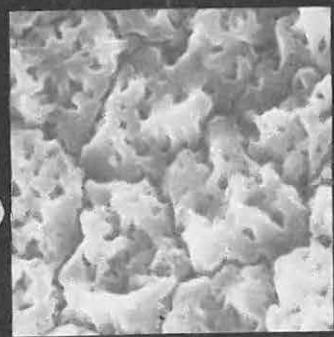
1



3



4



5

XXVII. tábla — Plate XXVII

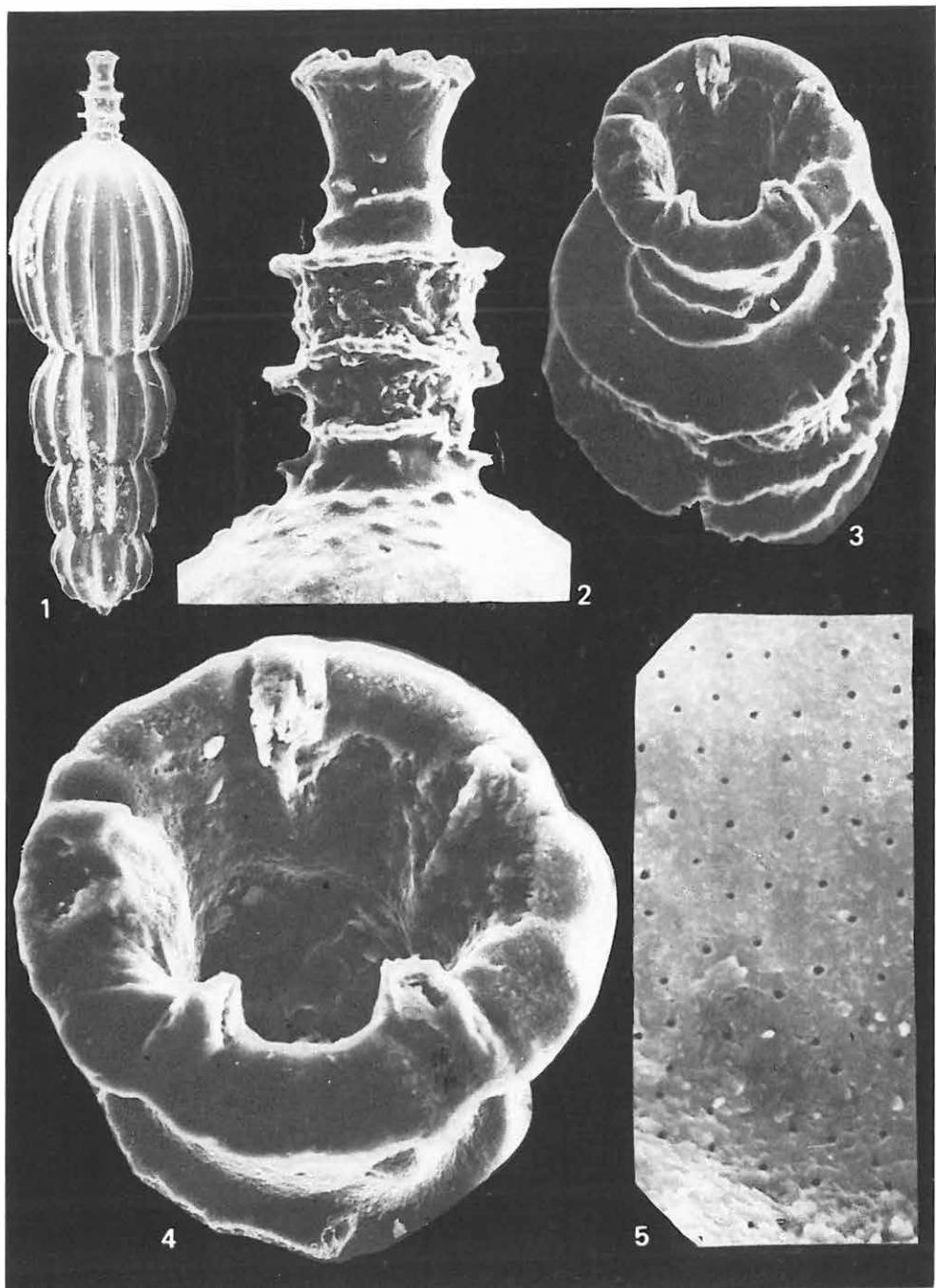
Oligocén

Nodosaria spinicosta d'ORBIGNY

Drégelypalánk 2. sz. f. 391,5—394,0 m

1. Totálkép — Total picture 100×
2. A nyakrész a szájnyíllással — The neck with the aperture 400×
3. A szájnyíllás felülnézetben a nyaki gyűrűkkel — A top view of the aperture with the neck-rings 600×
4. A szájnyíllás felülnézetben — A top view of the aperture 1300×
5. Perforált felület — Perforated surface 6000×

SEMs



XXVIII. tábla — Plate XXVIII

Oligocén

Lagena amphora REUSS

Berkenye 4. sz. f. 34,0—36,0 m

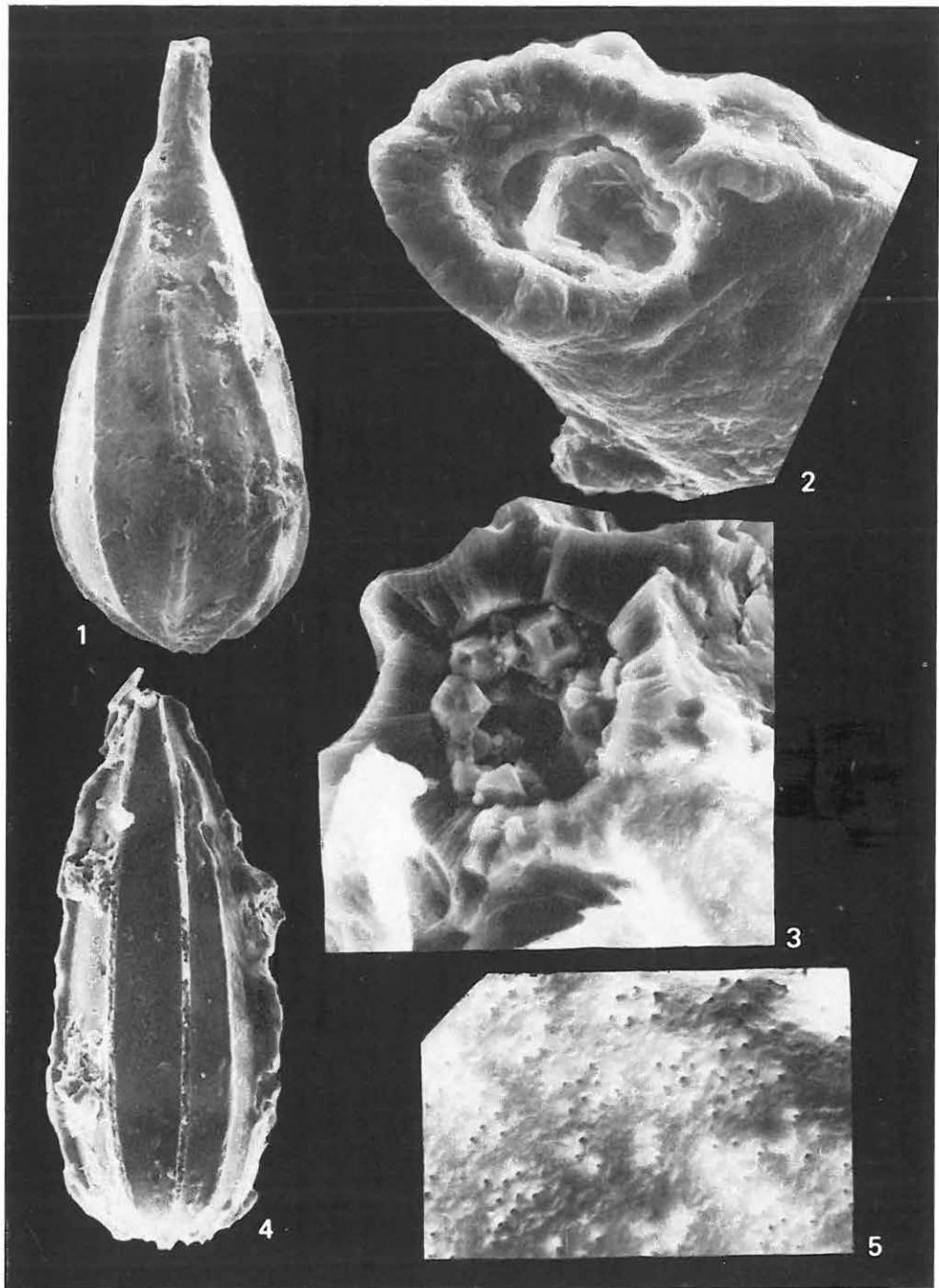
1. Totálkép — Total picture 200×
2. Törött szájnyílás — Broken aperture 1500×
3. Törött szájnyílás — Broken aperture 1600×

Lagena gracilis WILLIAMSON

Berkenye 1. sz. f. 55,0—56,0 m

4. Totálkép — Total picture 200×
5. Perforált felszín — Perforated surface 6000×

SEM



XXIX. tábla — Plate XXIX

Oligocén

Lagena striata (d'ORBIGNY)

Drégelypalánk 2. sz. f. 426,0—428,0 m

1. Totálkép — Total picture 360×

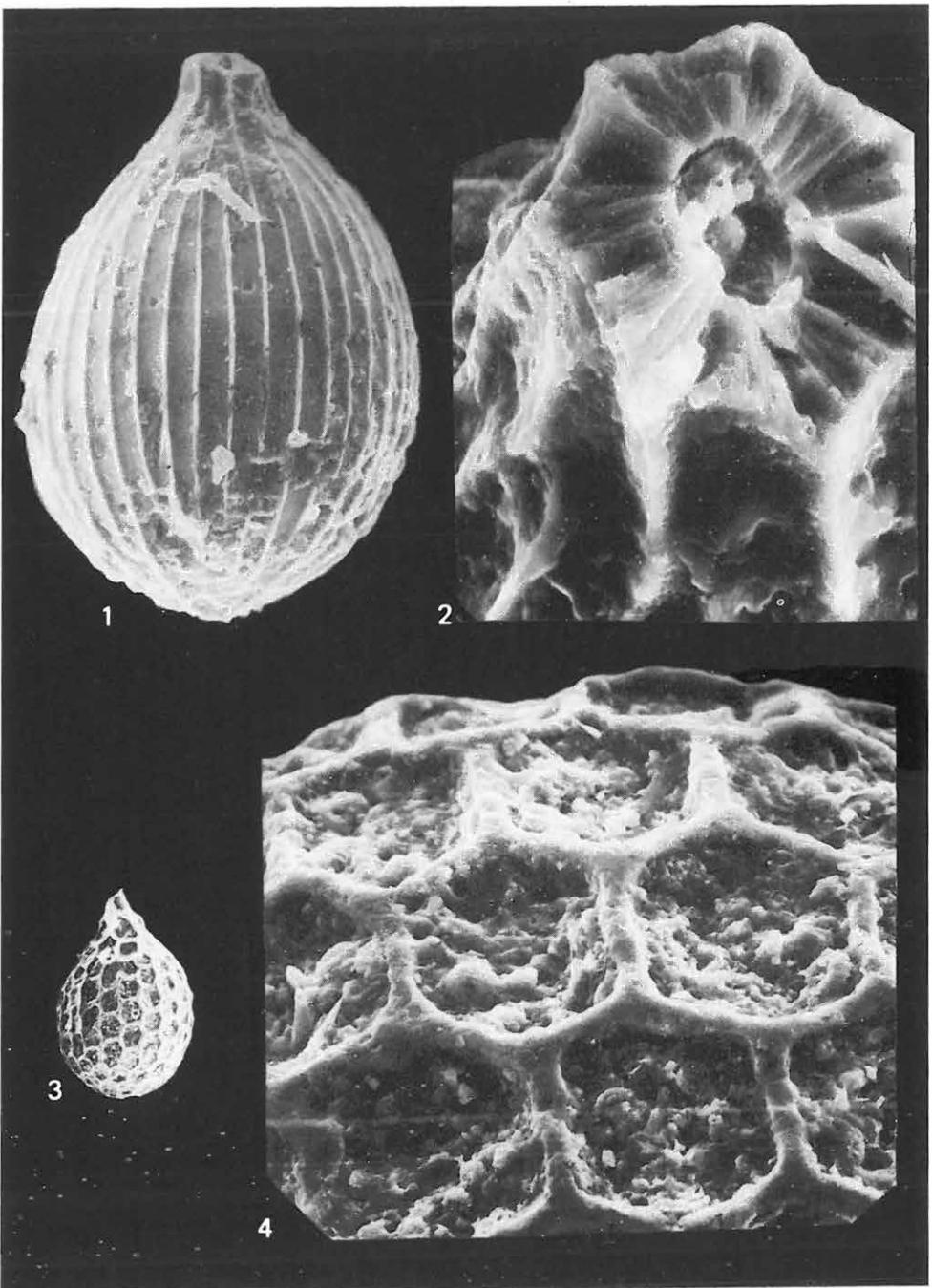
2. Eltört nyak a sugaras falszerkezettel — Broken neck with radial wall structure
2000×*Lagena hexagona* (WILLIAMSON)

Drégelypalánk 2. sz. f. 422,0—424,0 m

3. Totálkép — Total picture 100×

4. A ház felülete hatszög alakú díszítéssel — Surface of the test with hexagonal or-
naments 1000×

SEMs



XXX. tábla — Plate XXX

Oligocén

Lagena acuticosta REUSS

Berkenye 4. sz. f. 34,0—36,0 m

1. Totálkép — Total picture 260×

2. Szájnyílás — Aperture 2000×

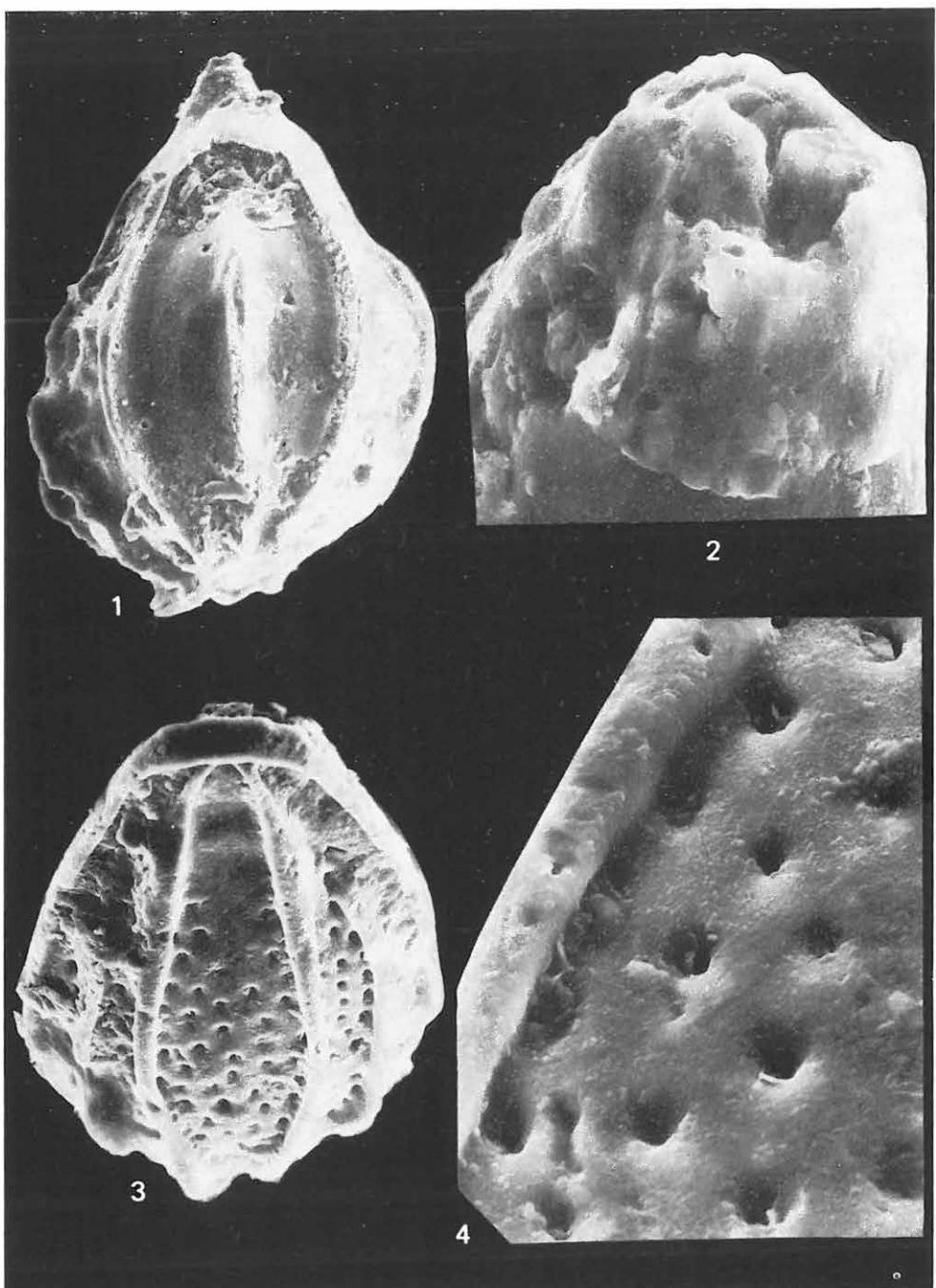
Oolina sp.

Berkenye 3. sz. f. 78,0—80,0 m

3. Totálkép — Total picture 480×

4. Durván perforált felszín az oldalszegélyekkel — Coarsely perforated surface with lateral periphery 2000×

SEMs



XXXI. tábla — Plate XXXI

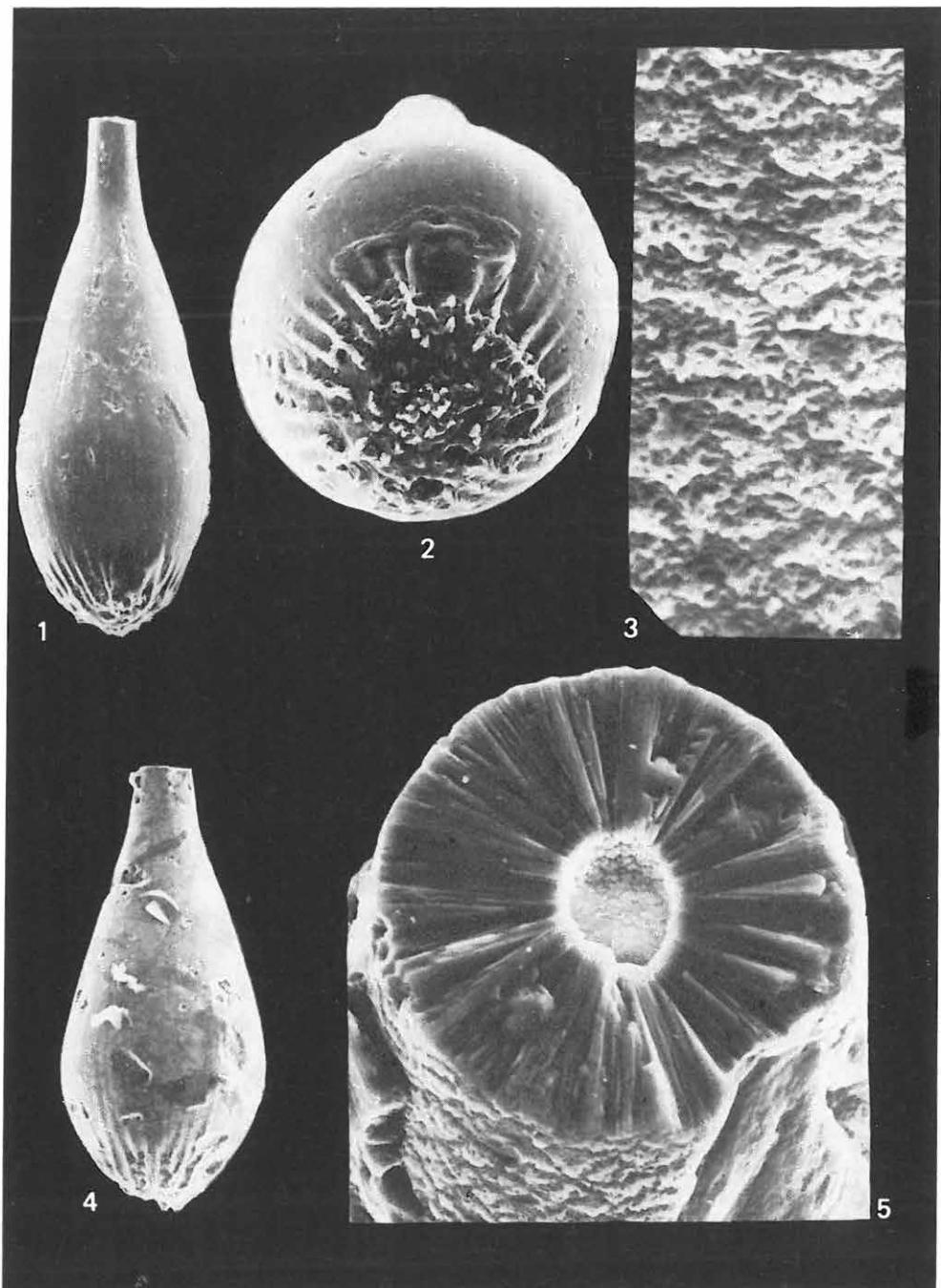
Oligocén

Lagenaria tenuis ornata REUSS

Berkenyé 4. sz. f. 34,0–36,0 m

1. Totálkép — Total picture $200\times$
2. Alulnézet a bordákkal — View from below with the ribs $400\times$
3. Belső felület — Interior surface $4000\times$
4. Totálkép (másik példány) — Total picture (another specimen) $150\times$
5. Eltört szájnyílás sugaras szerkezettel — Broken aperture with radial structure $1500\times$

SEMs



XXXII. tábla — Plate XXXII

Oligocén

Lagena striata (d'ORBIGNY)

Berkenye 4. sz. f. 152,0—154,0 m

1. Totálkép — Total picture 150×

2. Bordák és a köztes részek — Ribs and the space in between them 660×

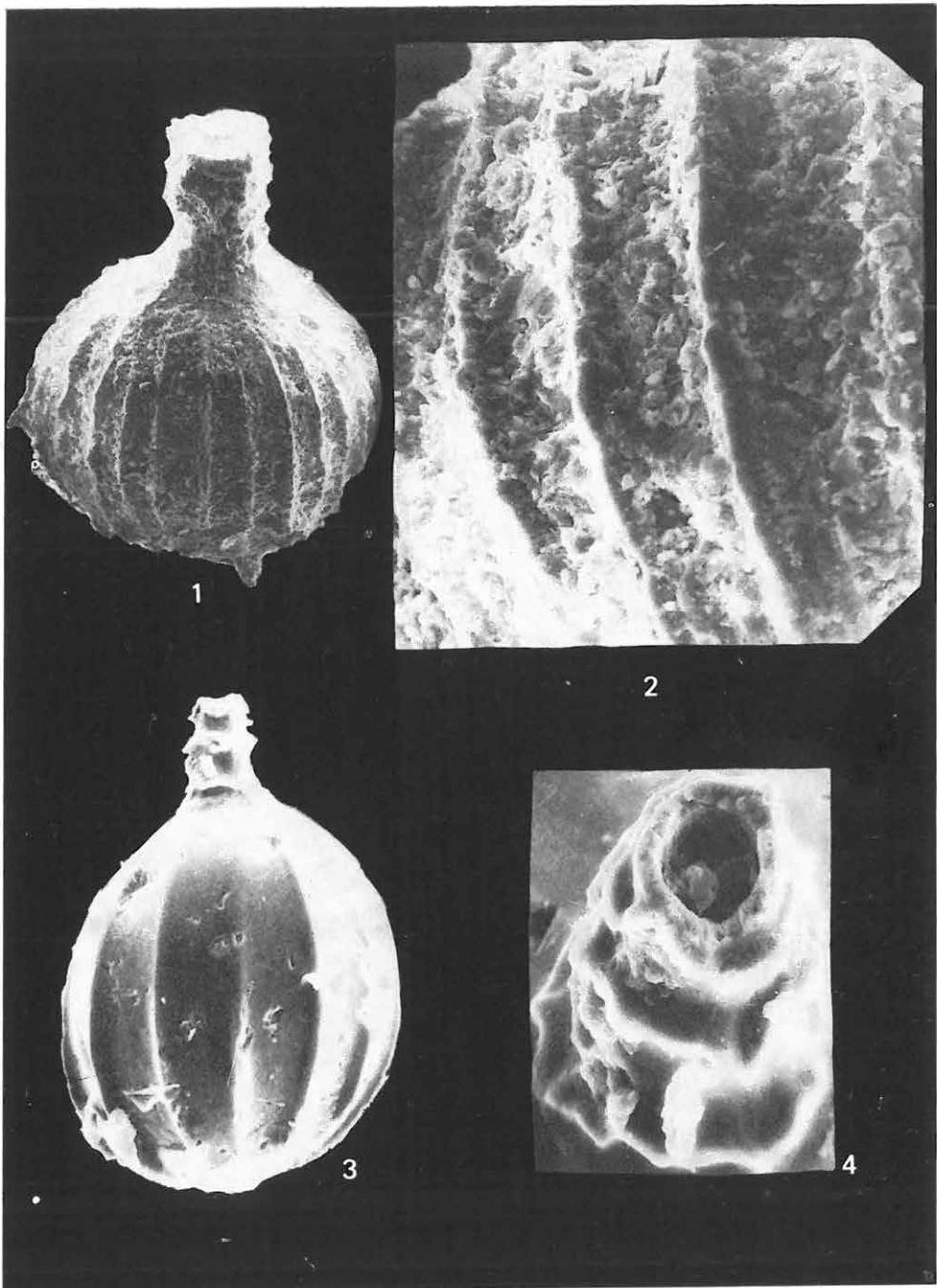
Lagena sp.

Berkenye 1. sz. f. 55,0—56,0 m

3. Totálkép — Total picture 220×

4. Szájnyílás — Aperture 720×

SEMs



XXXIII. tábla — Plate XXXIII
Oligocén

Lenticulina sp.

Berkenye 4. sz. f. 126,0—128,0 m

1. Totálkép — Total picture 200×
2. Sugaras szájnyílás — Radial aperture 1000×

Vaginulina sp.

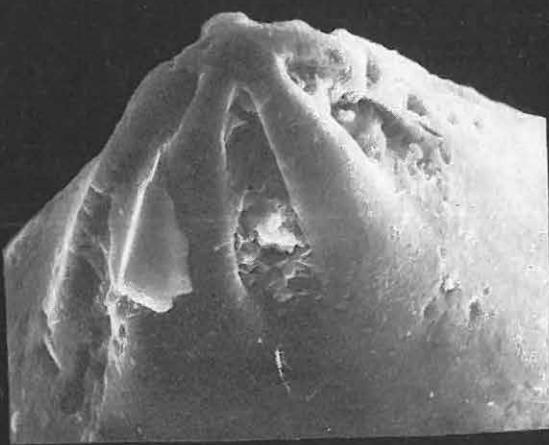
Berkenye 3. sz. f. 26,5—28,0 m

3. Totálkép — Total picture 100×
4. Sugaras szájnyílás — Radial aperture 1000×

SEMs



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XXXIV. tábla — Plate XXXIV

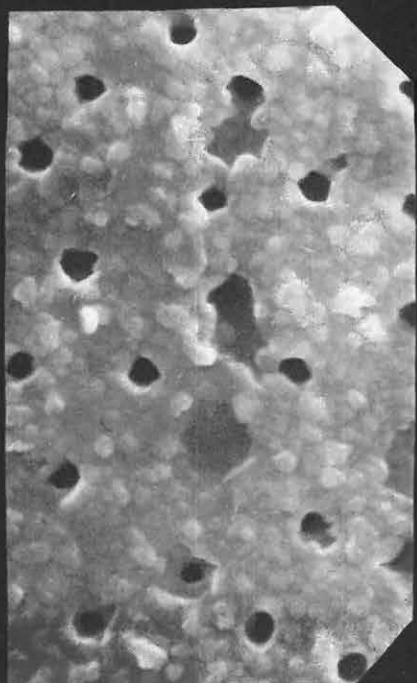
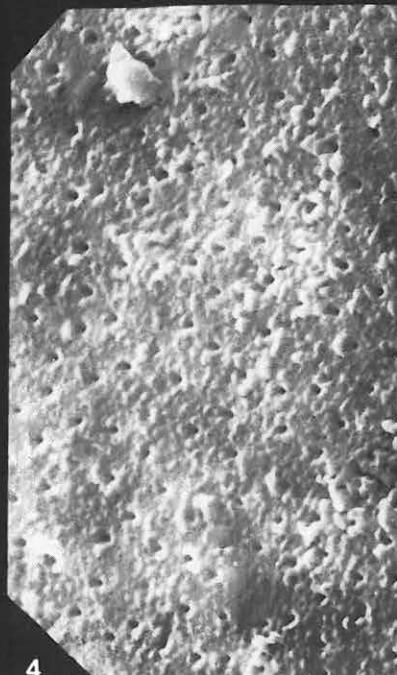
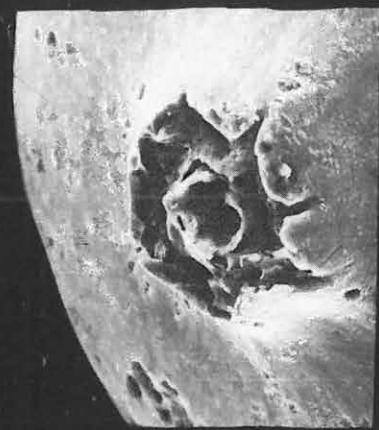
Oligocén

Marginulina subbullosa HANTKEN

Berkenye 4. sz. f. 84,0—86,0 m

1. Totálkép — Total picture 180×
2. Totálkép (másik példány) — Total picture (another specimen) 150×
3. Szájnyílás — Aperture 600×
4. Perforált felület — Perforated surface 6000×
5. Perforált felület — Perforated surface 15 000×

SEM-s



XXXV. tábla — Plate XXXV

Oligocén

Amphicoryna sp.

Berkenye 4. sz. f. 84,0—86,0 m

1. Totálkép — Total picture 100×

2. Szájnyílás — Aperture 240×

Nodosaria crassa HANTKEN

Berkenye 4. sz. f. 84,0—86,0 m

3. Totálkép — Total picture 150×

Nodosaria bacilloides HANTKEN

Berkenye 4. sz. f. 84,0—86,0 m

4. Totálkép — Total picture 180×

Nodosaria pyrula d'ORBIGNY

Berkenye 4. sz. f. 50,0—52,0 m

5. Totálkép — Total picture 100×

SEM



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XXXVI. tábla — Plate XXXVI

Oligocén

Amphicoryna tunicata (HANTKEN)

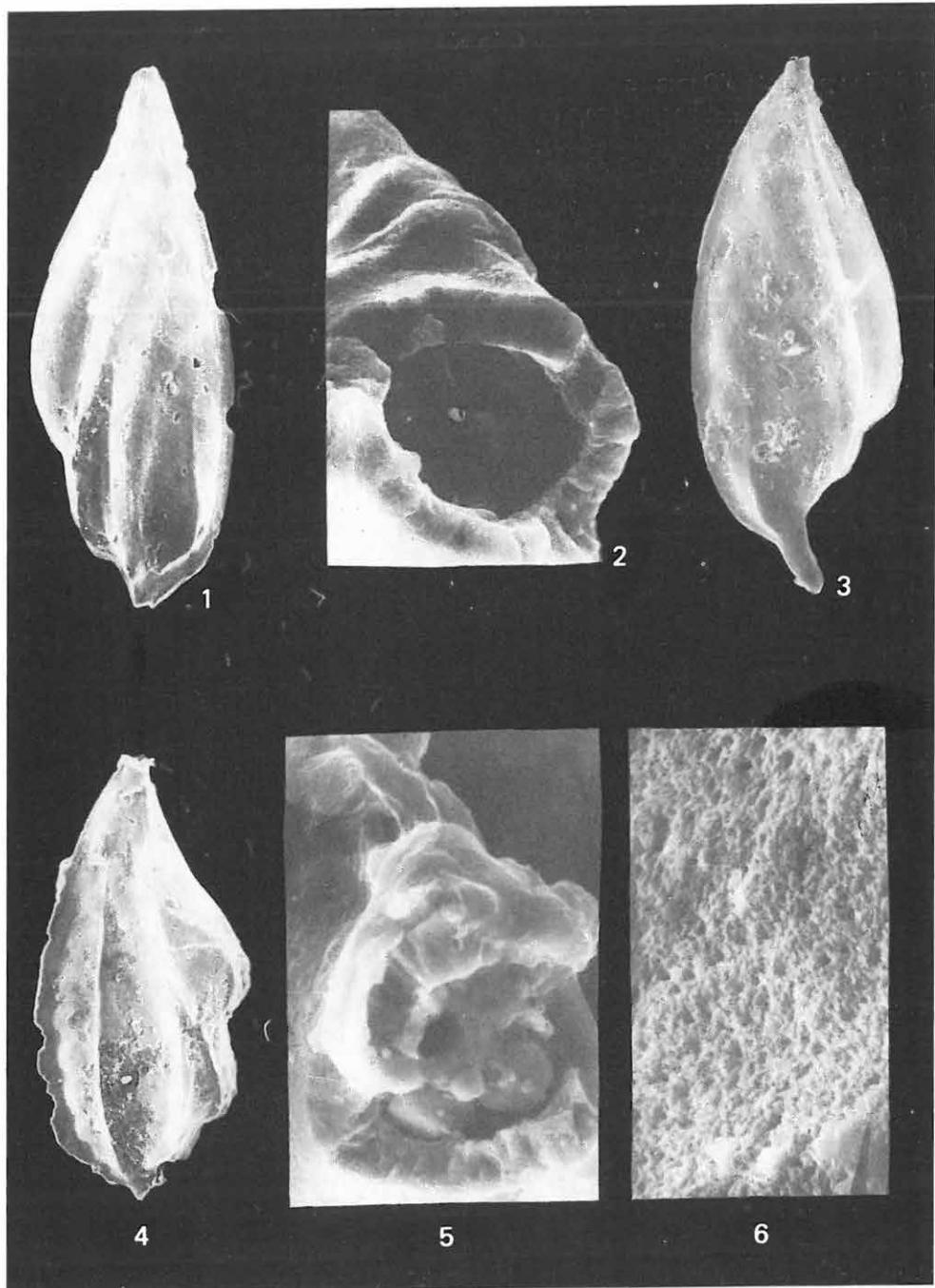
Berkenye 4. sz. f. 152,0—154,0 m

1. Totálkép — Total picture 150×
2. Szájnyílás — Aperture 1600×
3. Totálkép (más példány) — Total picture (another specimen) 160×

Berkenye 4. sz. f. 42,0—44,0 m

4. Totálkép (más példány) — Total picture (another specimen) 130×
5. Szájnyílás — Aperture 1600×
6. Perforált felület — Perforated surface 4000×

SEMs



XXXVII. tábla — Plate XXXVII

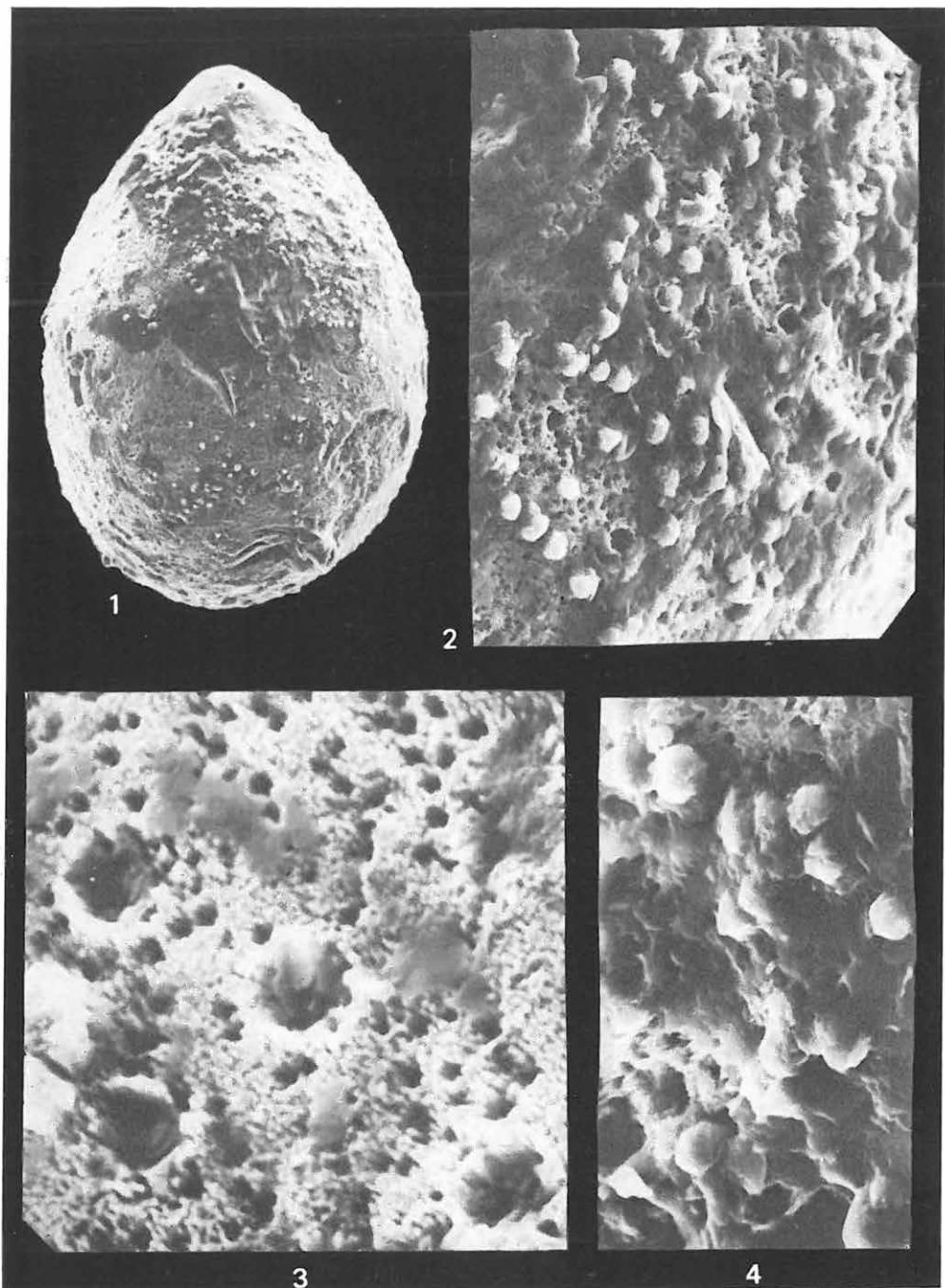
Oligocén

Globulina punctata d'ORBIGNY

Drégelypalánk 2. sz. f. 336,5—339,0 m

1. Totálkép — Total picture $200\times$
2. Részlet a felületről a gömbszerű díszítéssel — Detail of the surface with globular ornaments $1000\times$
3. Részlet a felületről a perforációkkal — Detail of the surface with the perforations $4000\times$
4. Részlet a felületről — Detail of the surface $2000\times$

SEMs



XXXVIII. tábla — Plate XXXVIII

Oligocén

Pseudonodosaria laevigata (d'ORBIGNY)

Berkenye 4. sz. f. 86,0—88,0 m

1. Totálkép — Total picture 120×

2. Sugaras szájnyílás felülnézetből — Radial aperture, top view 600×

Sigmomorphina anceps (PHILIPPI)

Berkenye 4. sz. f. 80,0—82,0 m

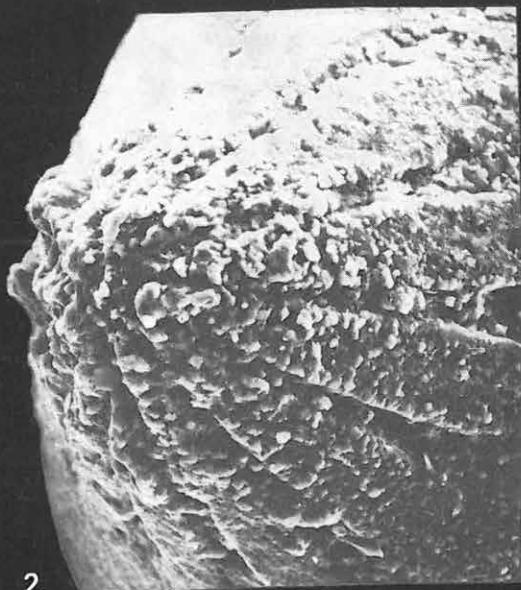
3. Totálkép — Total picture 100×

4. Összetett szájnyílás felülnézetből — Composite aperture, top view 600×

SEM-s



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XXXIX. tábla — Plate XXXIX

Oligocén

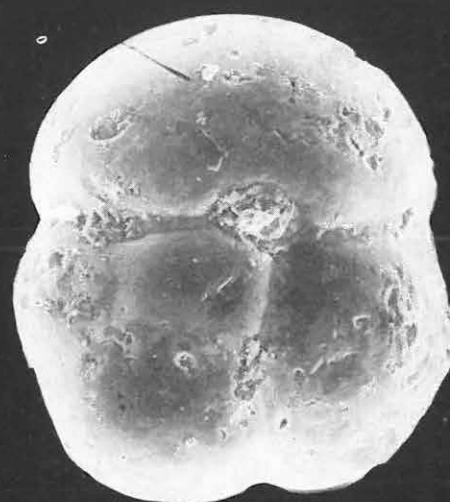
Sphaeroidina variabilis REUSS

Drégelypalánk 2. sz. f. 373,0—375,0 m

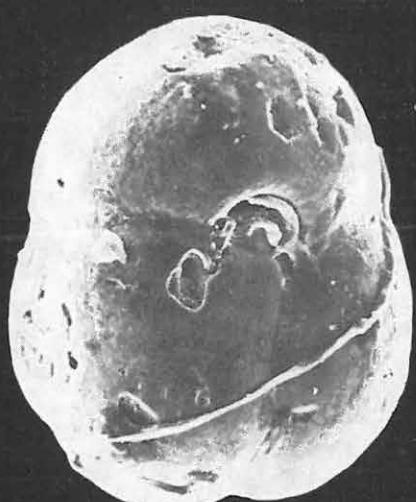
1. Totálkép — Total picture 200×
2. Kissé oldalnézetben — Slightly in lateral view 200×
3. Szájnyílás — Aperture 1500×

SEMs





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XL. tábla — Plate XL

Oligocén

Bolivina antiqua d'ORBIGNY

Borsosberény 2. sz. f. 17,5—19,0 m

1. Totálkép — Total picture 100×
4. Totálkép — Total picture 150×
5. Perforált felület — Perforated surface 2000×

Bolivina sp.

Márianosztra 14. sz. f. 83,8 m

2. Totálkép — Total picture 100×
3. Perforált felület — Perforated surface 1000×

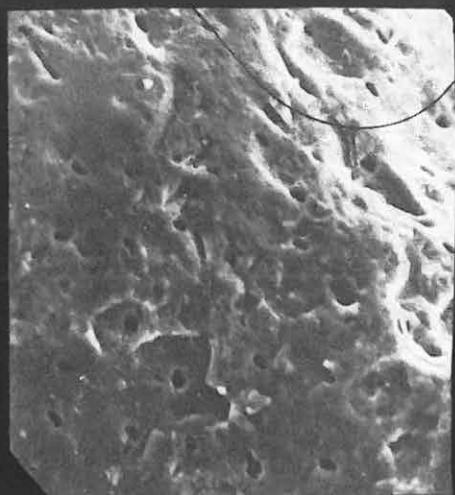
SEM



1



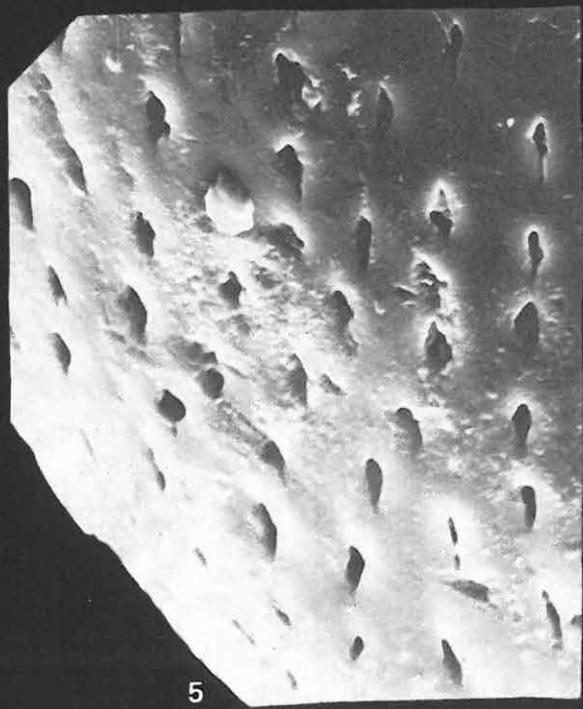
2



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4



5

XLI. tábla — Plate XLI

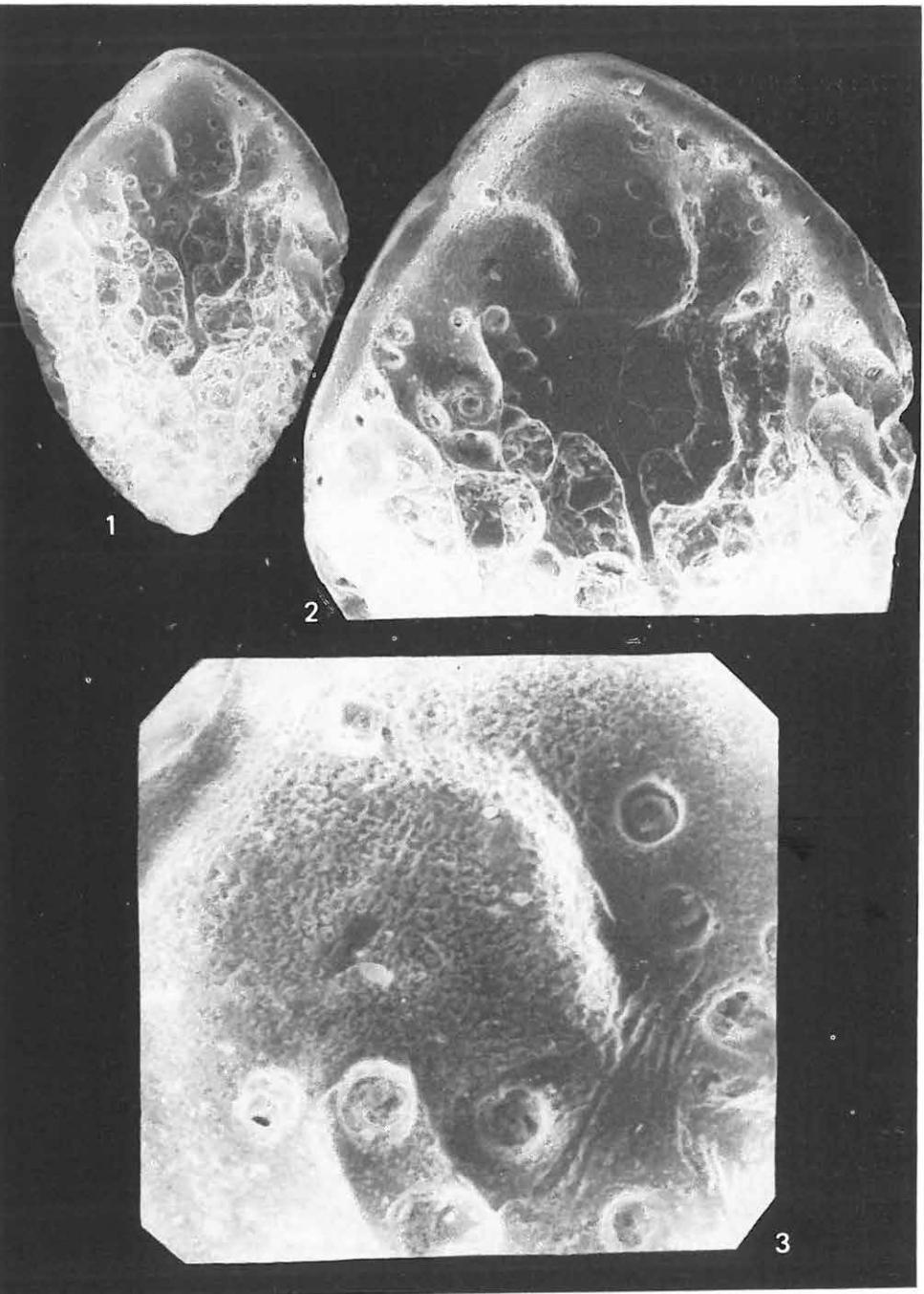
Oligocén

Bolivina reticulata HANTKEN

Berkenye 4. sz. f. 9,0—10,0 m

1. Totálkép — Total picture $320\times$ 2. Felületi kép a szájnyílás környékéről — Surface image around the aperture $600\times$ 3. Felületi kép nagy perforációkkal — Surface image with large perforations $1800\times$

SEM



XLII. tábla — Plate XLII

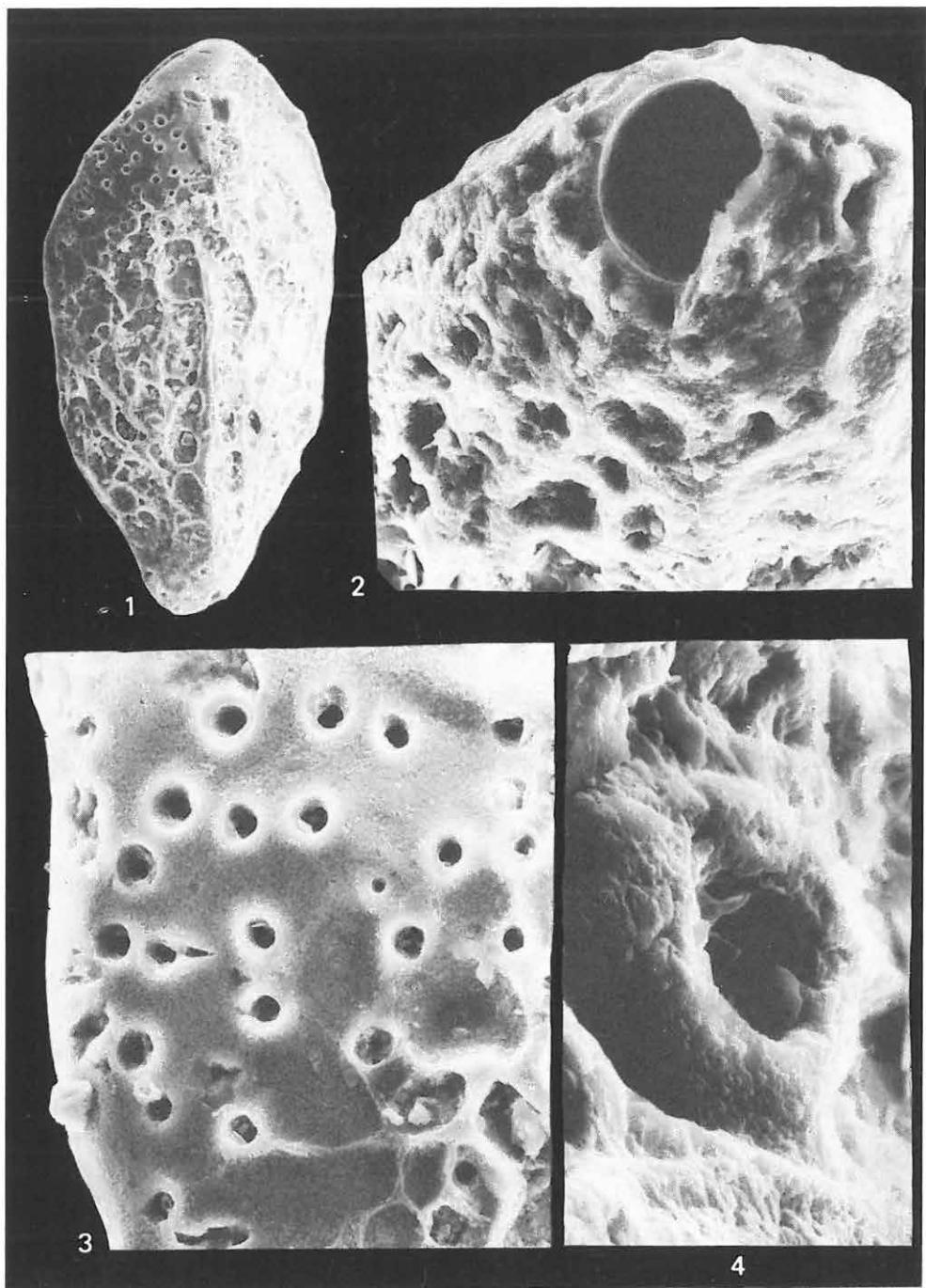
Oligocén

Bolivina reticulata HANTKEN

Berkenye 4. sz. f. 80,0—82,0 m

1. Felületi kép — Surface 200×
2. Szájnyílás felülnézetben — Aperture, top view 1000×
3. Perforált felszín — Perforated surface 1000×
4. Egy pórus nagyított képe — A single pore, enlarged 3000×

SEM-s



XLIII. tábla — Plate XLIII

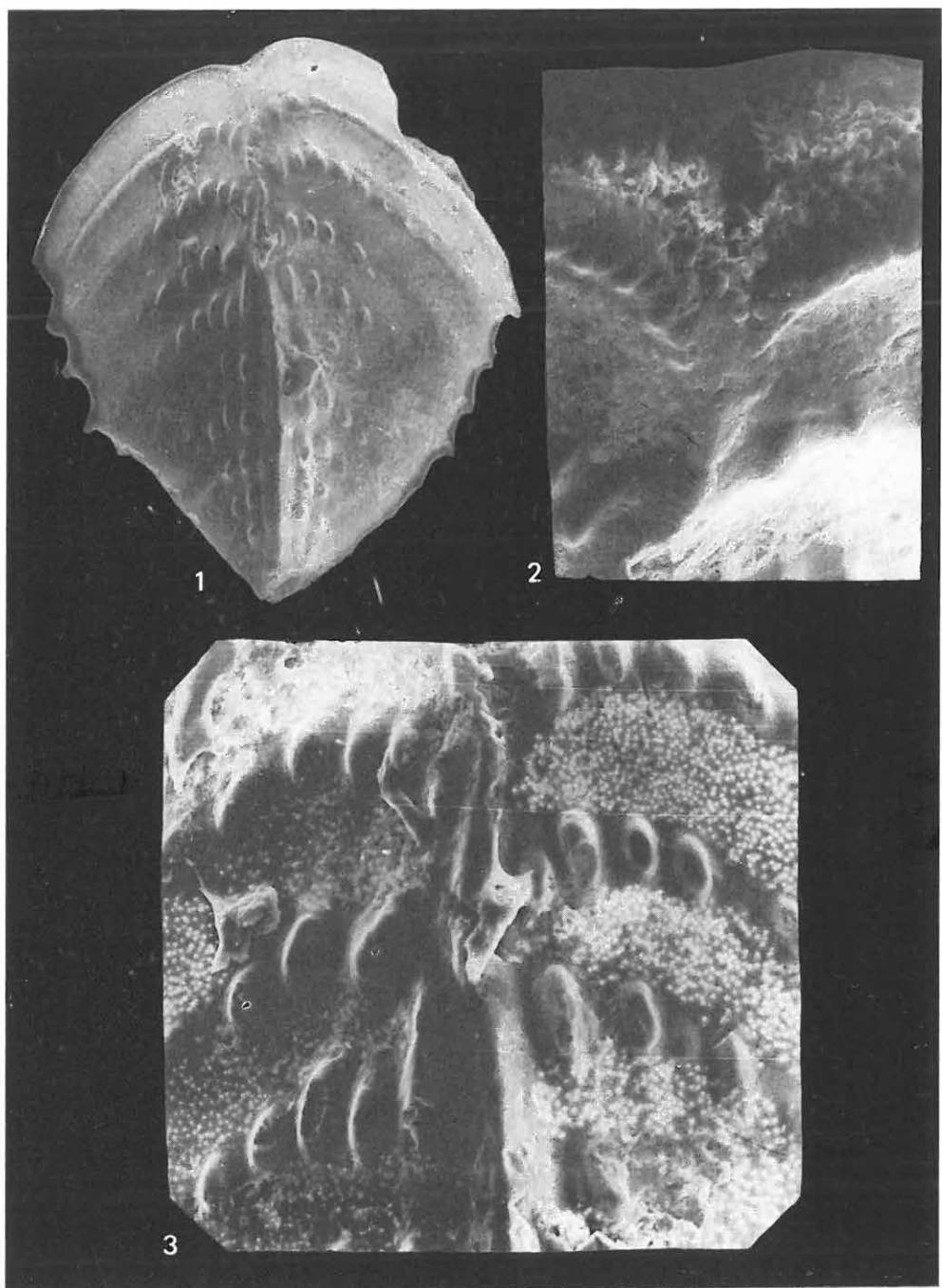
Oligocén

Bolivinella interrupta HOWE

Drégelypalánk 2. sz. f. 475,0—477,0 m

1. Totálkép — Total picture 110×
2. A szájnyílás felülnézetben — The aperture, top view 440×
3. Felületi kép gyöngydíszítéssel és perforációkkal — Surface with pearl-like ornaments and perforations 360×

SEM-s



XLIV. tábla — Plate XLIV

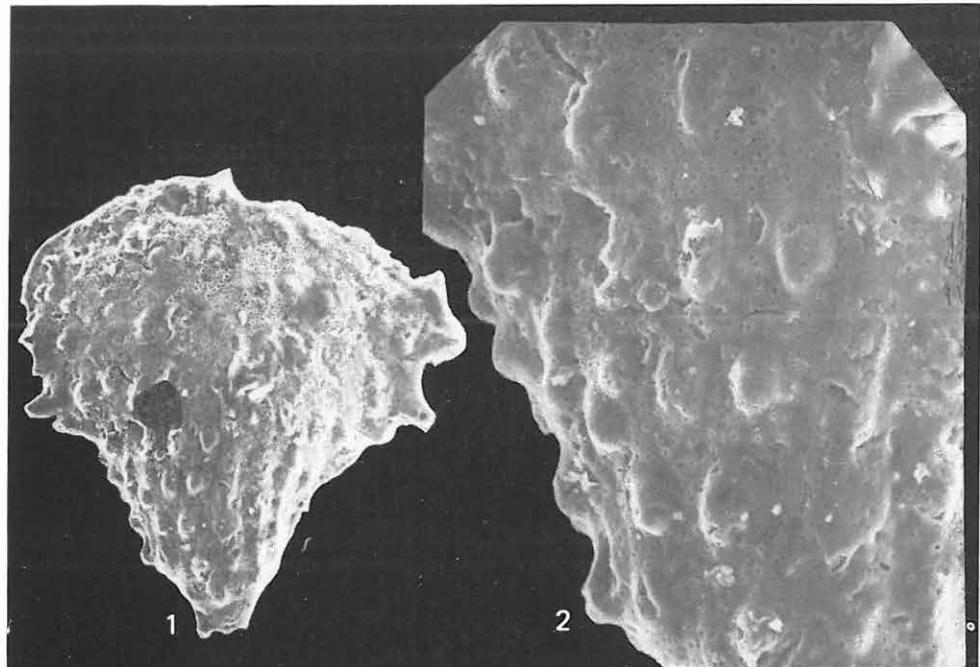
Oligocén

Bolininella rugosa HOWE

Berkenye 4. sz. f. 68,0—70,0 m

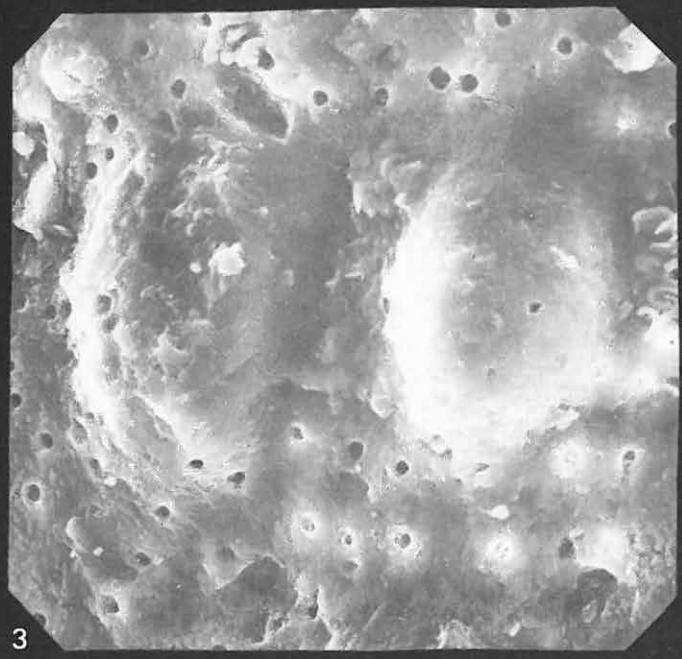
1. Totálkép — Total picture 200×
2. Felületi kép gyöngydíszítéssel — Surface with pearl-like ornaments 600×
3. Felületi kép gyöngydíszítéssel és perforációkkal — Surface with pearl-like ornaments and perforations 3000×

SEMs



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XLV. tábla — Plate XLV

Oligocén

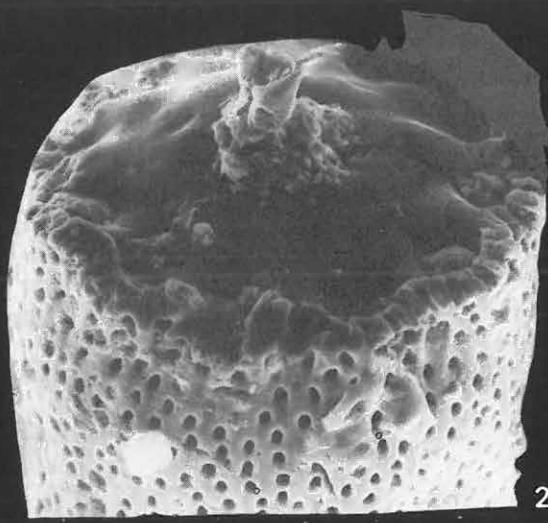
Rectobolivina zsigmondyi (HANTKEN)

Berkenyé 4. sz. f. 44,0—46,0 m

1. Totálkép, törött példány — Total picture, fragmented specimen 100×
2. Törött felület felülnézetben — Broken surface, top view 400×
3. Az alsó rész hosszanti bordákkal és perforációkkal — Lower part with longitudinal ribs and perforations 600×
4. Részlet a hosszanti bordákkal és perforációkkal — Detail of the longitudinal ribs and the perforations 600×

SEMs





XLVI. tábla — Plate XLVI

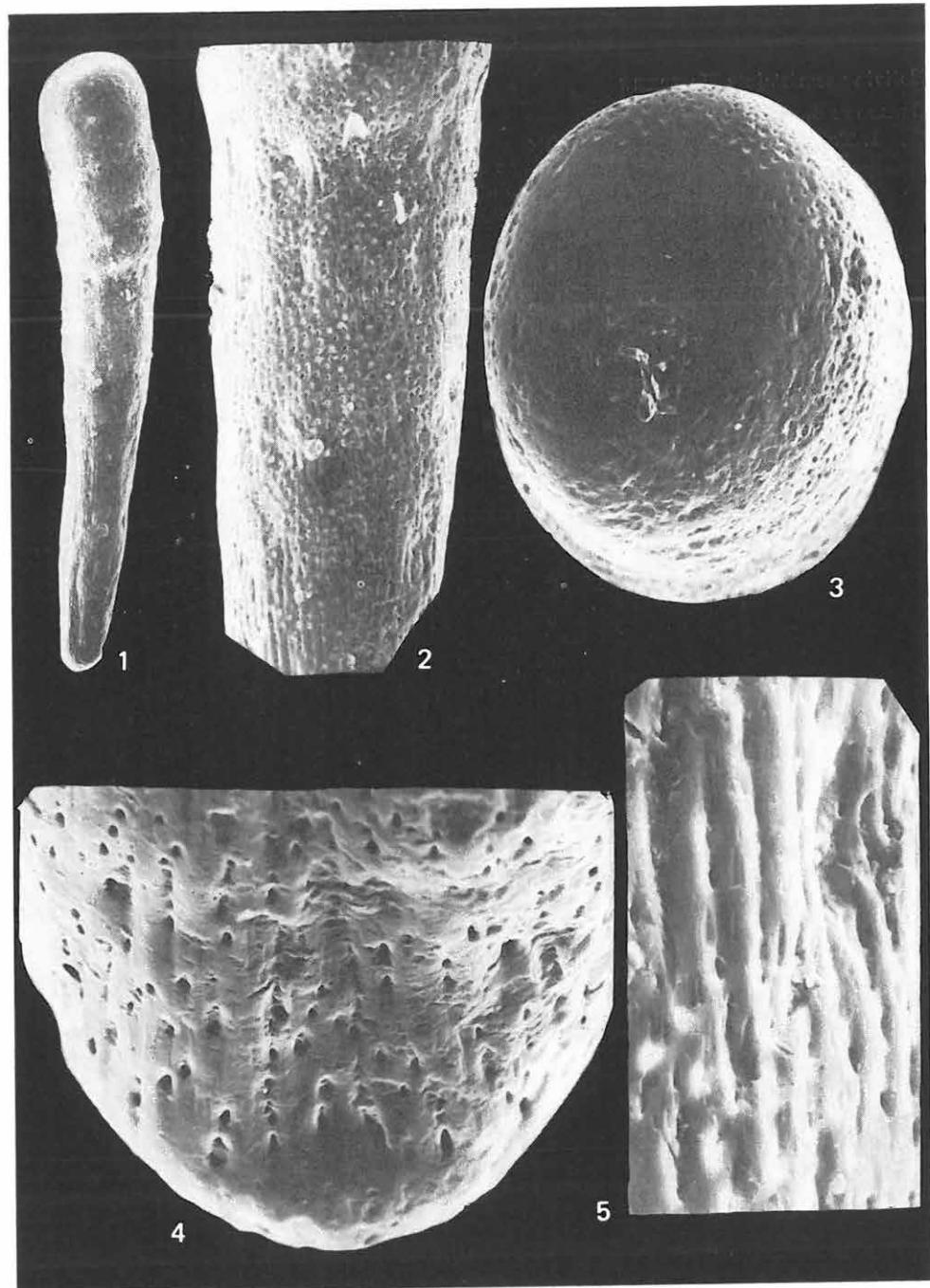
Oligocén

Rectobolivina zsigmondyi (HANTKEN)

Berkenyé 4. sz. f. 44,0—46,0

1. Totálkép — Total picture 72×
2. Részlet a perforációkkal — Detail with perforations 200×
3. A szájnyílás felülnézetben — The aperture, top view 300×
4. Az alsó rész perforációkkal — The lower part with perforations 1000×
5. Részlet az alsó részről hosszanti bordákkal — Detail of the lower part with longitudinal ribs 1000×

SEM-s



XLVII. tábla — Plate XLVII

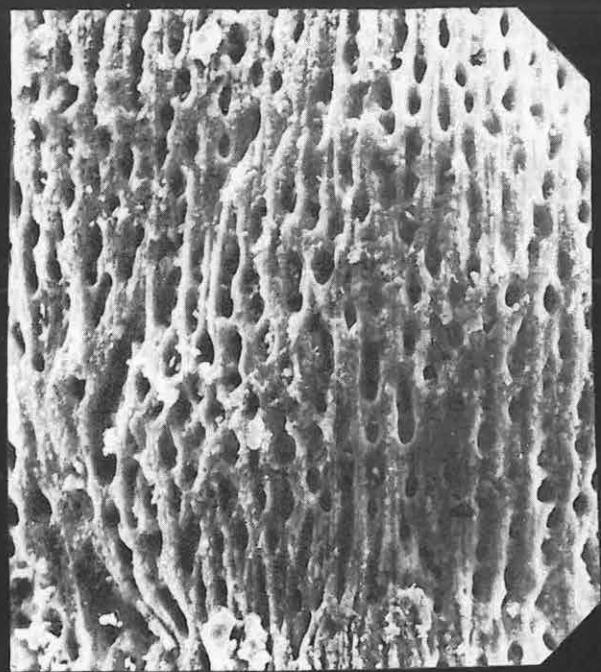
Oligocén

Bolivina semistriata HANTKEN

Berkenye 4. sz. f. 15,0—16,0 m

1. Totálkép — Total picture 100×
2. A felülről részlet — Detail of the surface 600×
3. A szájnyílás oldalnézetben — The aperture, lateral view 600×
4. A szájnyílás felülnézetben — The aperture, top view 300×

SEMs



XLVIII. tábla — Plate XLVIII

Oligocén

Bolivina budensis (HANTKEN)

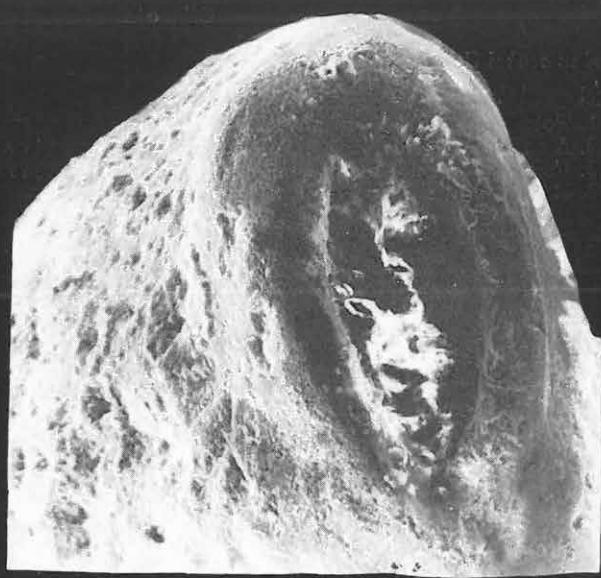
Drégelypalánk 2. sz. f. 470,0—471,0 m

1. Totálkép — Total picture 180×
2. A szájnyílás felülnézetben — The aperture, top view 1000×
3. Részlet perforációkkal — Detail with perforations 1100×

SEMs



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XLIX. tábla — Plate XLIX

Oligocén

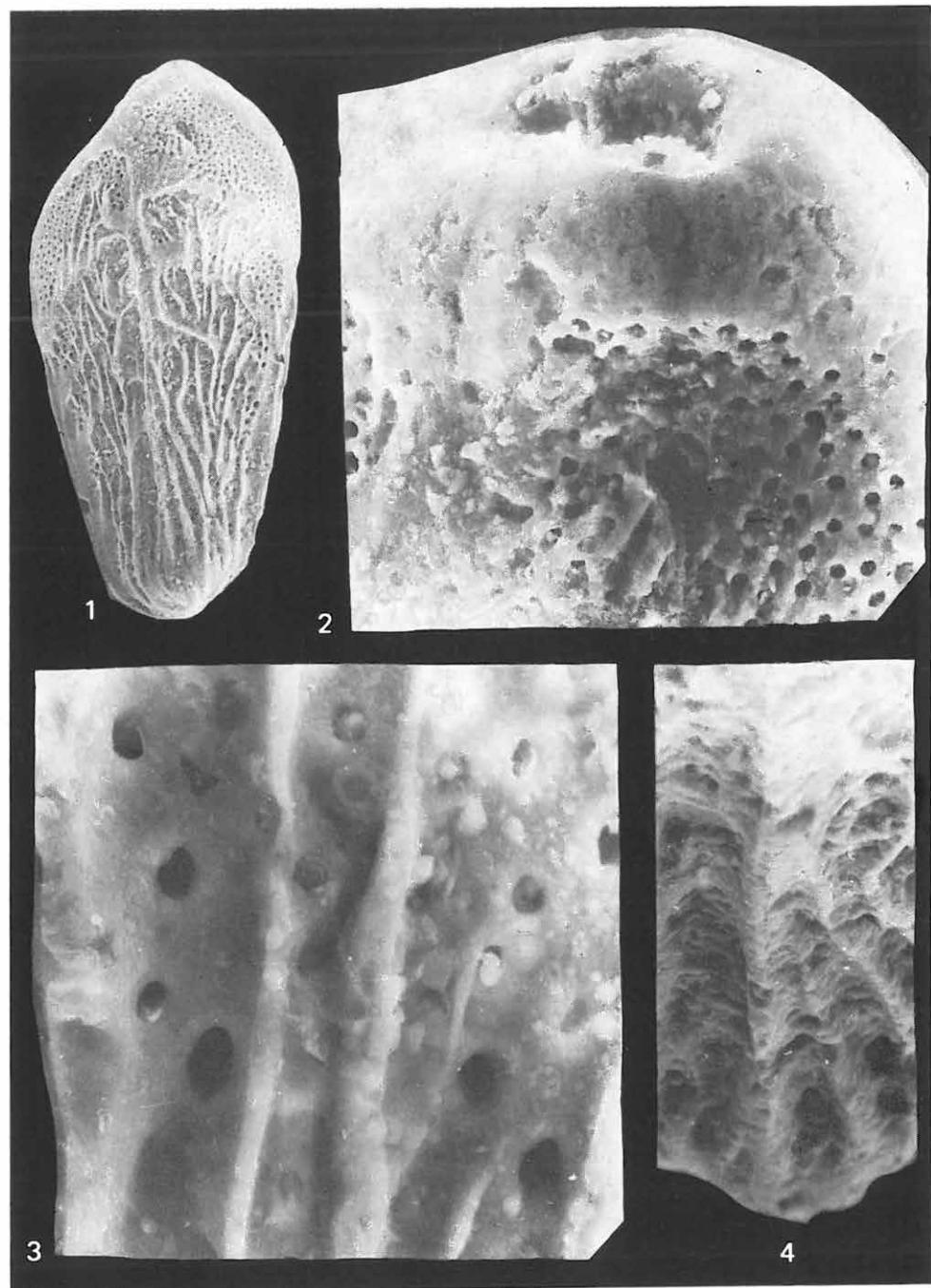
Bolivina cookei CUSHMAN

vonal?

Drégelypalánk 2. sz. f. 450,0—452,0 m

1. Totálkép — Total picture $150\times$
2. A szájnyílás felülnézetből — The aperture, top view $720\times$
3. Felszínről részlet bordákkal — Detail of the surface with ribs $2000\times$
4. Részlet egy bordáról — Detail of a rib $600\times$

SEMs



L. tábla — Plate L

Oligocén

Bolivina sp.

Drégelypalánk 2. sz. f. 454,0—456,0 m

1. Totálkép — Total picture 260×

2. Felszínrészlet a diszítésekkel — Detail of the surface with ornamentation 2000×

Bolivina liebusi HOFMANN

Berkenye 4. sz. f. 12,0—13,0 m

3. Totálkép — Total picture 200×

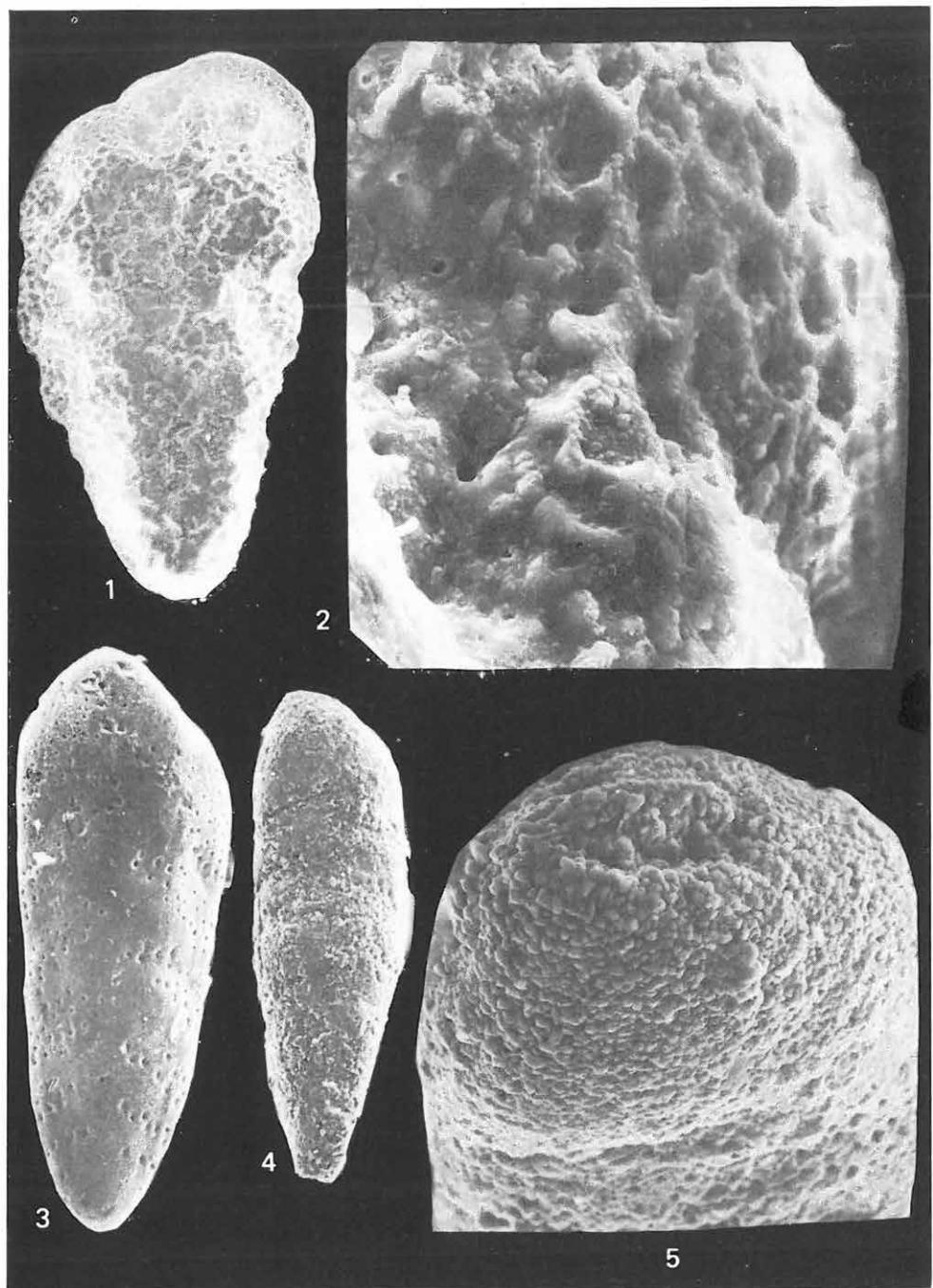
Bolivina oligocenica varica HOFMANN

Drégelypalánk 2. sz. f. 438,0—440,0 m

4. Totálkép — Total picture 200×

5. Szájnyílás felülnézetben — The aperture, top view 720×

SEMs



LI. tábla — Plate LI

Oligocén

Bolivina fastigia fastigia CUSHMAN

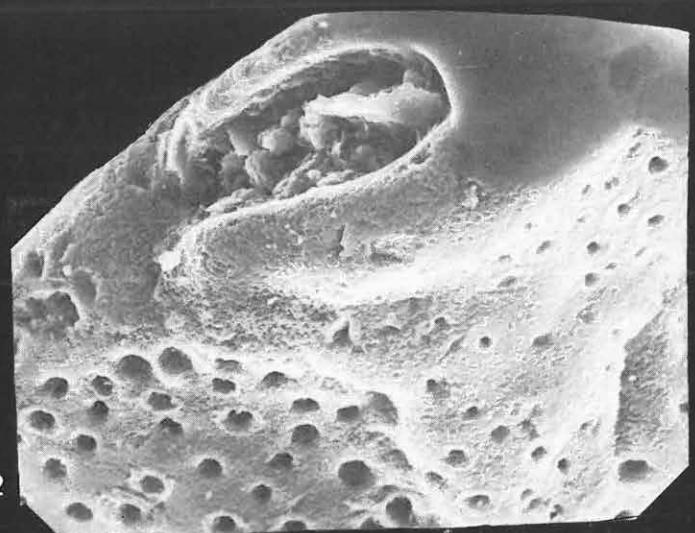
Drégelypalánk 2. sz. f. 468,0—470,0 m

1. Totálkép — Total picture 100×
2. A szájnyílás felülnézetben — The aperture, top view 1000×
3. Felszínrészlet a perforációkkal — Detail of the surface with perforations 1000×
4. Felszínrészlet — Detail of the surface 10 000×

SEMs



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4

LII. tábla — Plate LII

Oligocén

Bolivina oligocaenica oligocaenica SPANDEL

Drégelypalánk 2. sz. f. 479,0—481,0 m

1. Totálkép — Total picture 200×

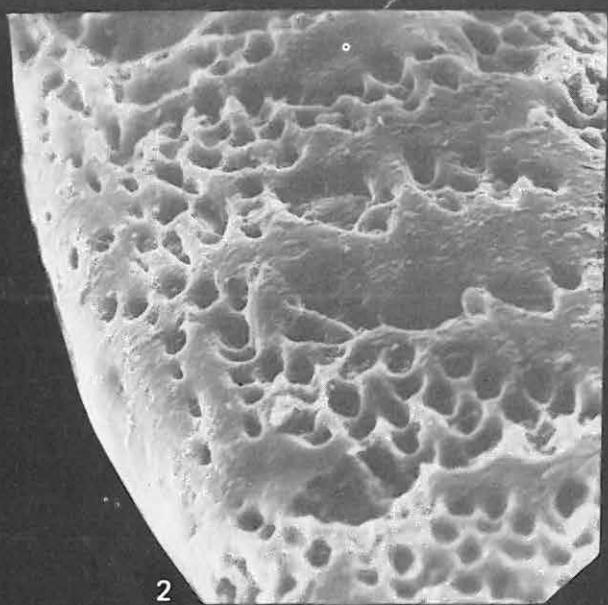
2. Felszínrészlet a perforációkkal — Detail of the surface with the perforations 1000×

3. Felszínrészlet a perforációkkal — Detail of the surface with the perforations 1500×

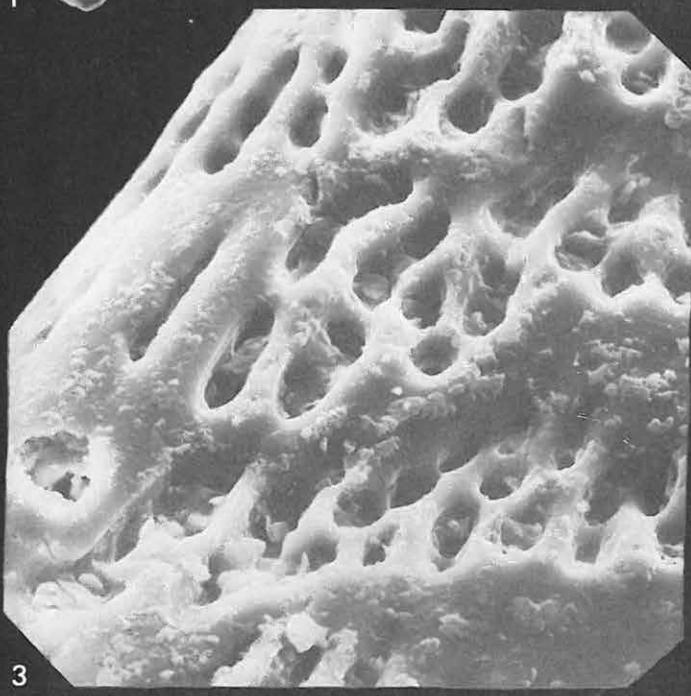
SEM



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LIII. tábla — Plate LIII

Oligocén

Bulimina alsatica CUSHMAN et PARKER

Berkenye 4. sz. f. 58,0—60,0 m

1. Totálkép — Total picture 200×

2. Részlet a perforált felszínről — Detail of the perforated surface 2000×

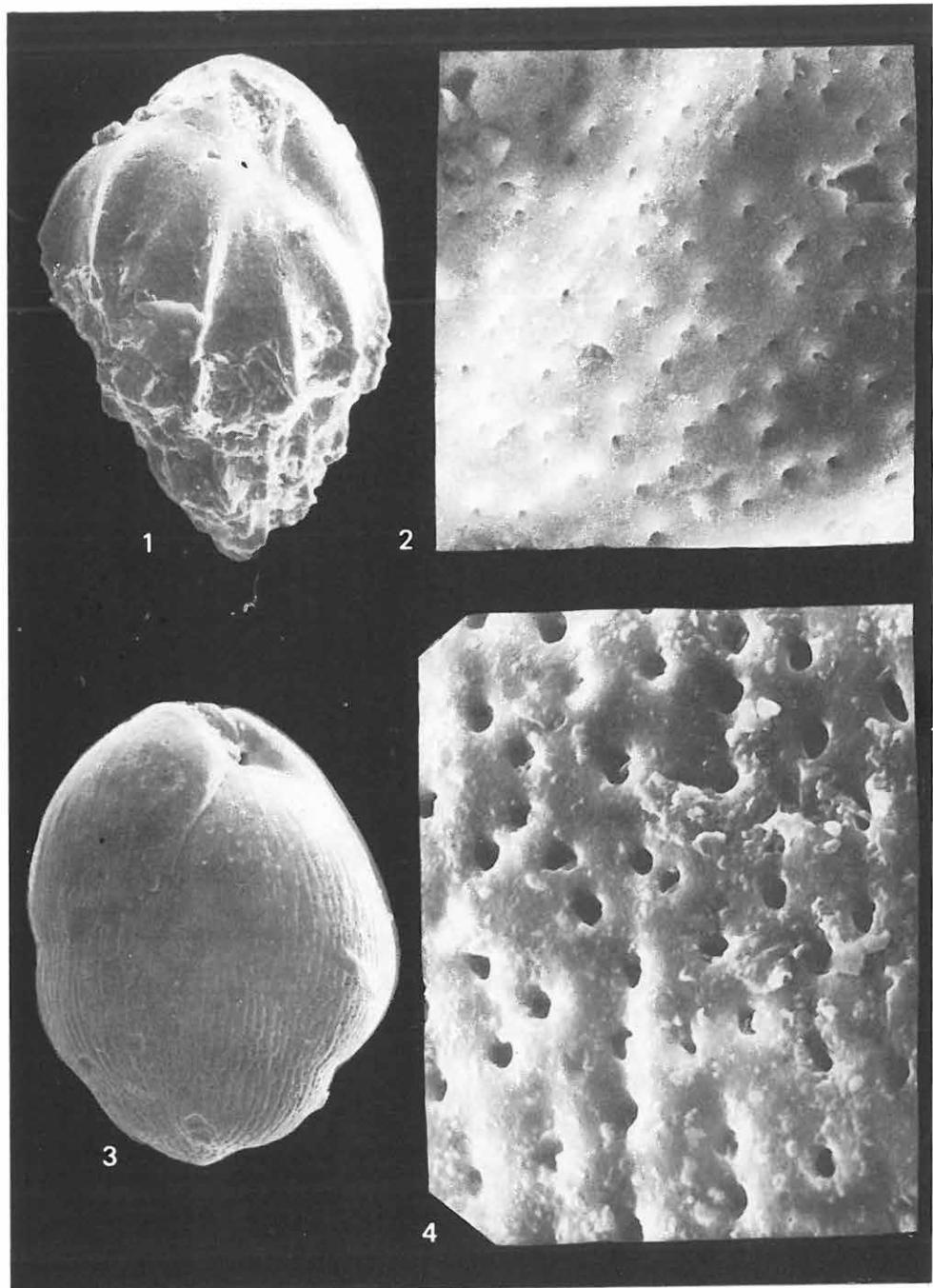
Bulimina punctato costata CUSHMAN et STONE

Berkenye 4. sz. f. 50,0—52,0 m

3. Totálkép — Total picture 200×

4. Részlet a perforált felszínről — Detail of the perforated surface 1500×

SEM-s



LIV. tábla — Plate LIV

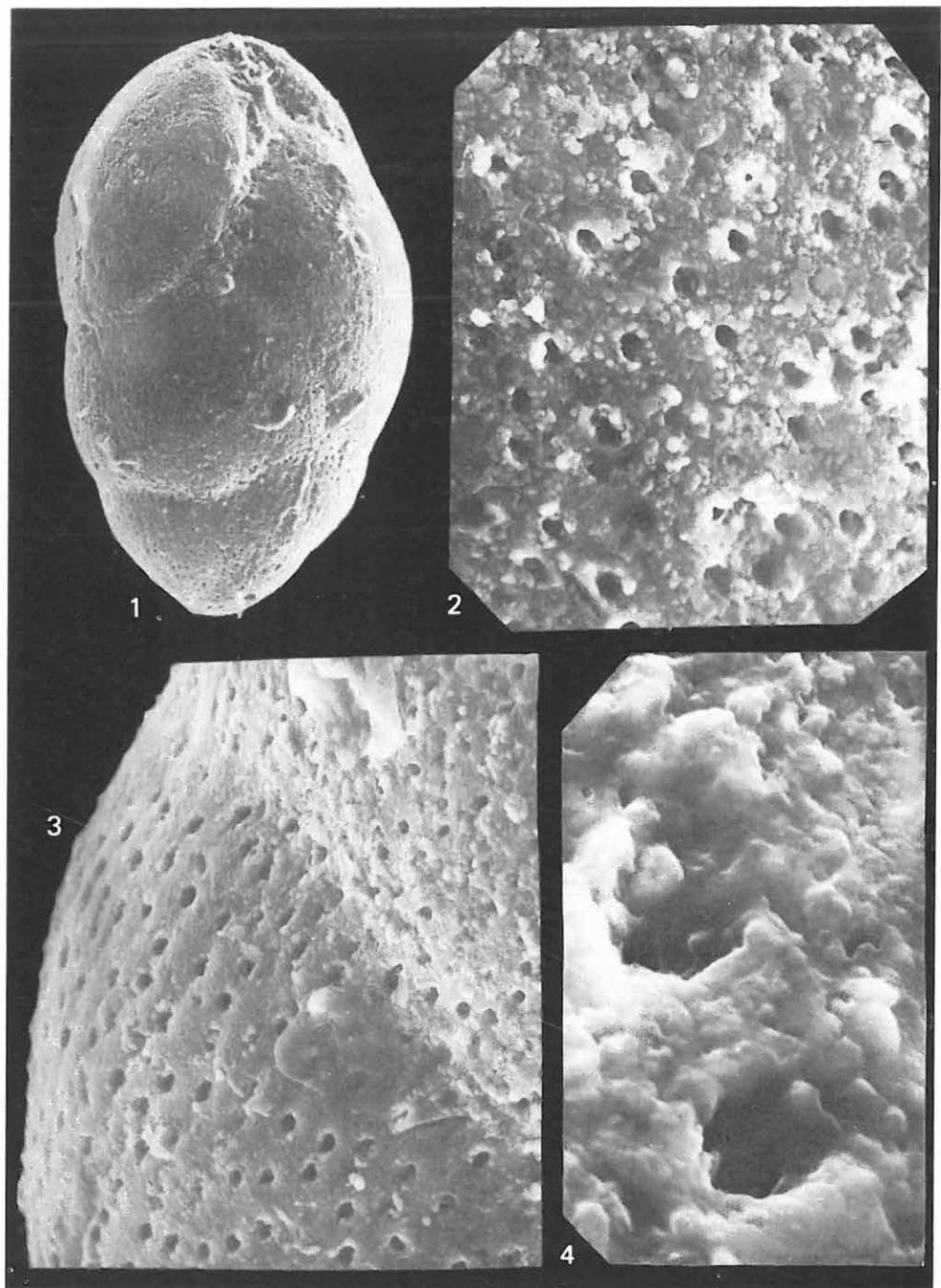
Oligocén

Praeglobulina ovata (d'ORBIGNY)

Berkenyé 4. sz. f. 90,0—92,0 m

1. Totálkép — Total picture 200×
2. Felszínrészlet perforációkkal — Detail of the surface with perforations 2000×
3. Felszínrészlet perforációkkal — Detail of the surface with perforations 1000×
4. Felszínrészlet perforációkkal — Detail of the surface with perforations 8600×

SEM-s



LV. tábla — Plate LV

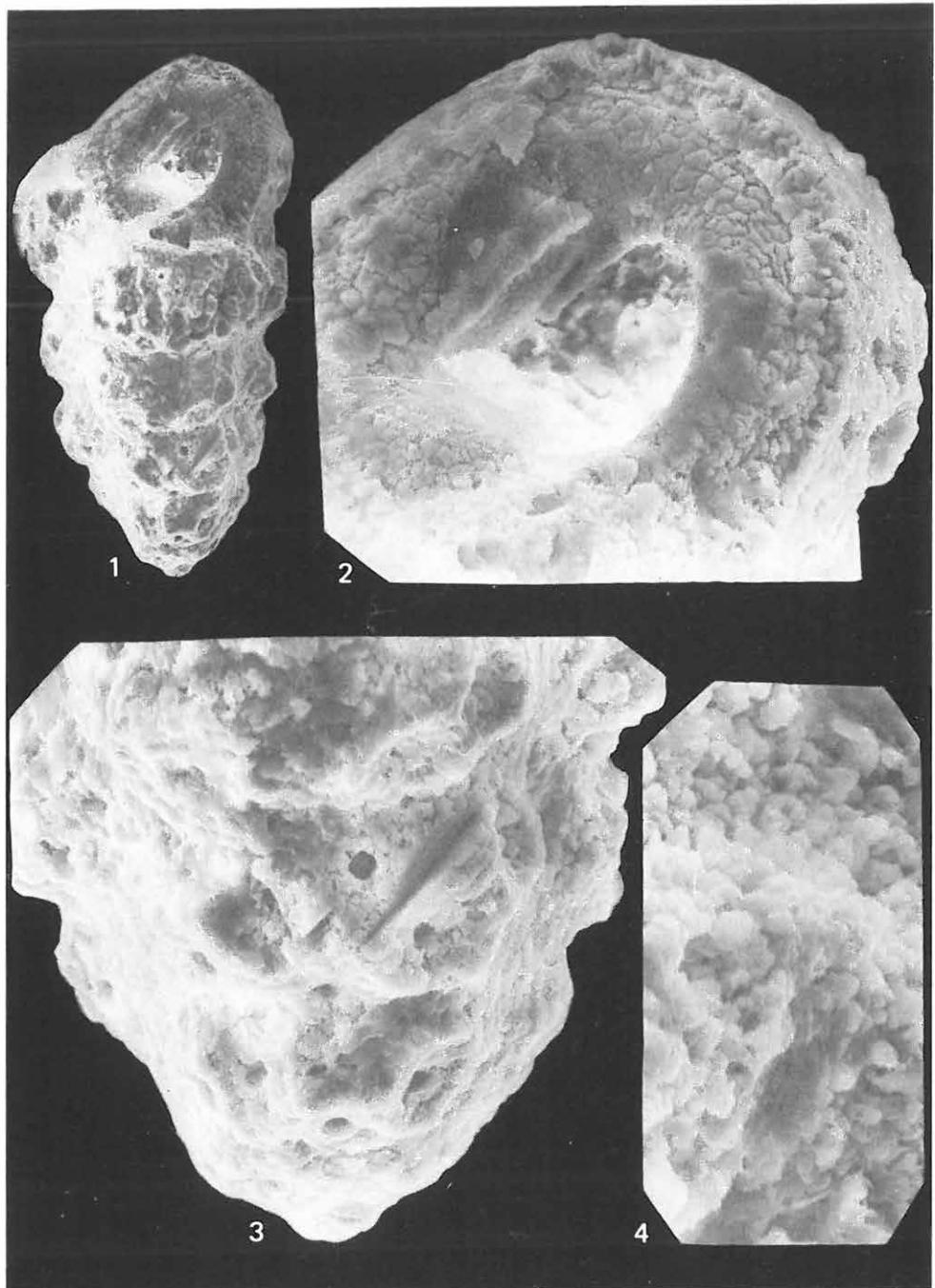
Oligocén

Bulimina kasselensis BATJES

Borsosberény 2. sz. f. 28,0—32,0 m

1. Totálkép — Total picture 260×
2. A szájnyílás felülnézetben — The aperture, top view 780×
3. Felszínrészlet az alsó részről — Detail of the surface from the lower part 780×
4. Felszínrészlet perforációkkal — Detail of the surface with perforations 1800×

SEM-s



LVI. tábla — Plate LVI**Oligocén**

Furstenkoina schreibersiana (CŽJŽEK)

Borsosberény 2. sz. f. 50,0—53,1 m

1. Totálkép — Total picture 100×
2. Totálkép kissé oldalnézetből — Total picture, slightly in lateral view 100×
3. A szájnyílás felülnézetben — The aperture, top view 600×

Bulimina truncana GÜMBEL

Márianosztra 3. sz. f. 67,0—69,0 m

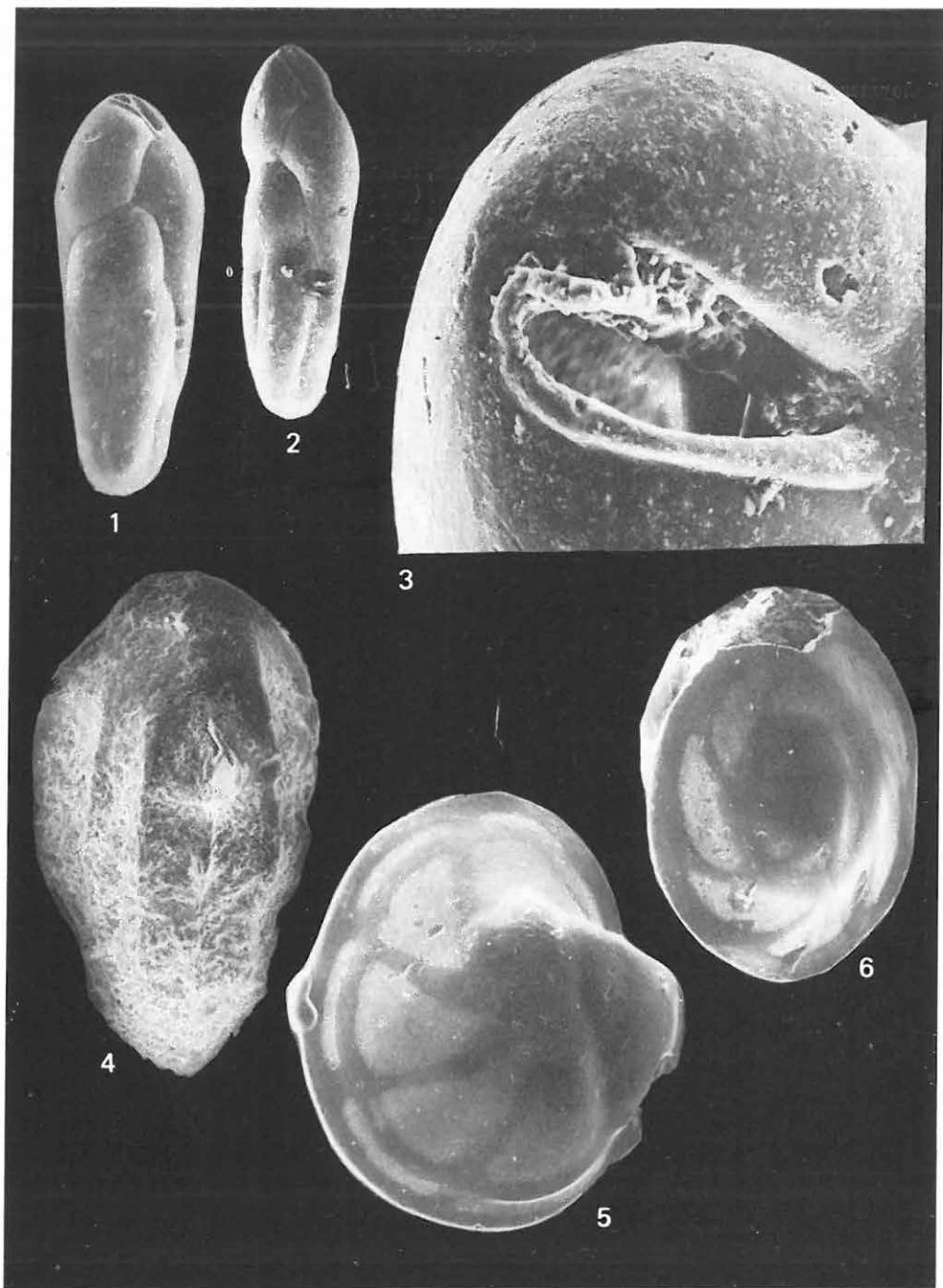
4. Totálkép — Total picture 180×

Hoeglundina elegans (d'ORBIGNY)

Drégelypalánk 2. sz. f. 477,0—479,0 m

5. Totálkép, köldök oldal — Total picture, umbilical side 100×
6. Totálkép, tekeres oldal — Total picture, dorsal side 120×

SEMs



LVII. tábla — Plate LVII

Oligocén

Siphogeneroides elegans (HANTKEN)

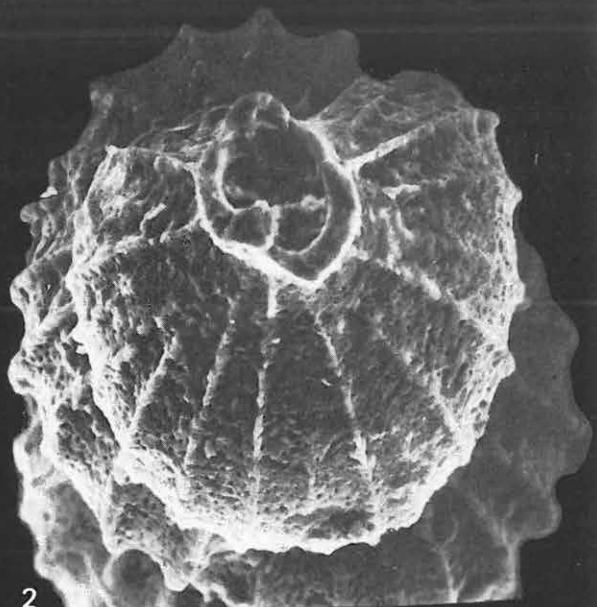
Drégelypalánk 2. sz. f. 475,0—477,0 m

1. Totálkép — Total picture 200×
2. A szájnyílás felülnézetben — The aperture, top view 720×
3. Totálkép (másik példány) — Total picture, (another specimen) 100×
4. A szájnyílás felülnézetben — The aperture, top view 300×
5. Felszínrészlet bordákkal és perforációkkal — Detail of the surface with ribs and perforations 1000×

SEM-s



1



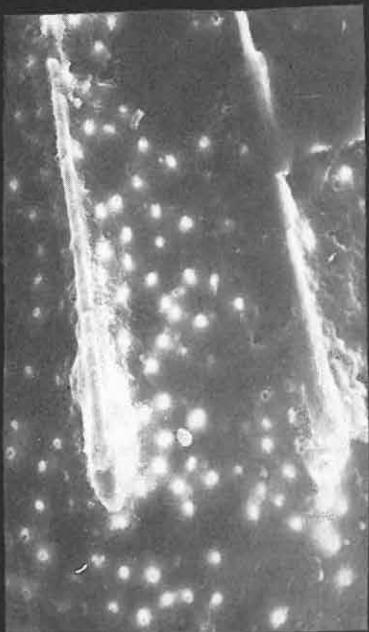
2



3



4



5

LVIII. tábla — Plate LVIII

Oligocén

Uvigerina steyri steyri PAPP

Drégelypalánk 2. sz. f. 367,0—369,0 m

1. Totálkép — Total picture 150×

2. Felső részlet a nyakkal — Upper part with the neck 300×

3. Felszínrészlet bordákkal és perforációkkal — Detail of the surface with ribs and perforations 1000×

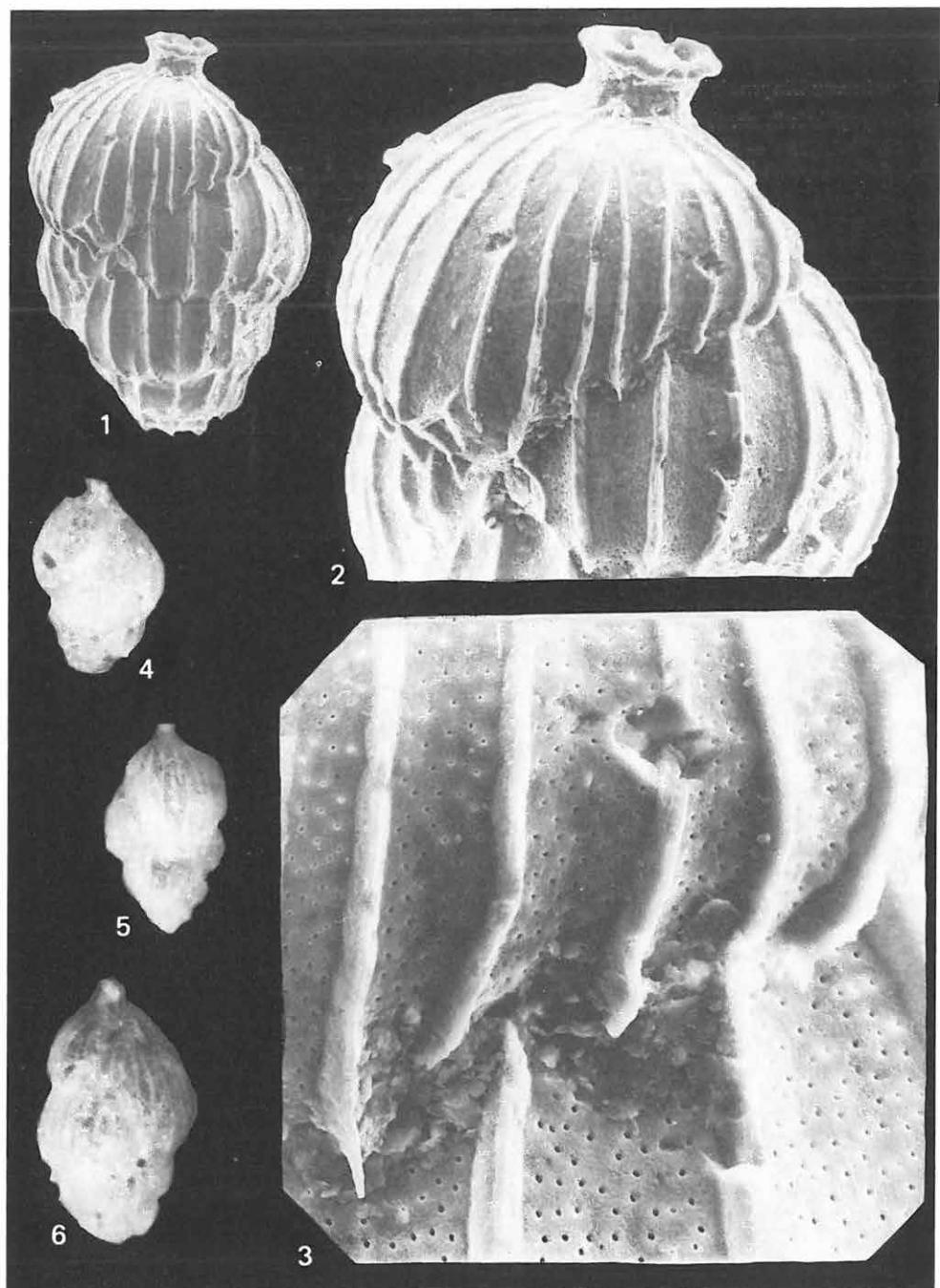
SEM felvételek — SEMs

Uvigerina steyri steyri PAPP

Drégelypalánk 2. sz. f. 367,0—369,0 m

4—6. Totálképek — Total pictures 75×

Fénymikroszkópos felvételek — With optical microscope



LIX. tábla — Plate LIX

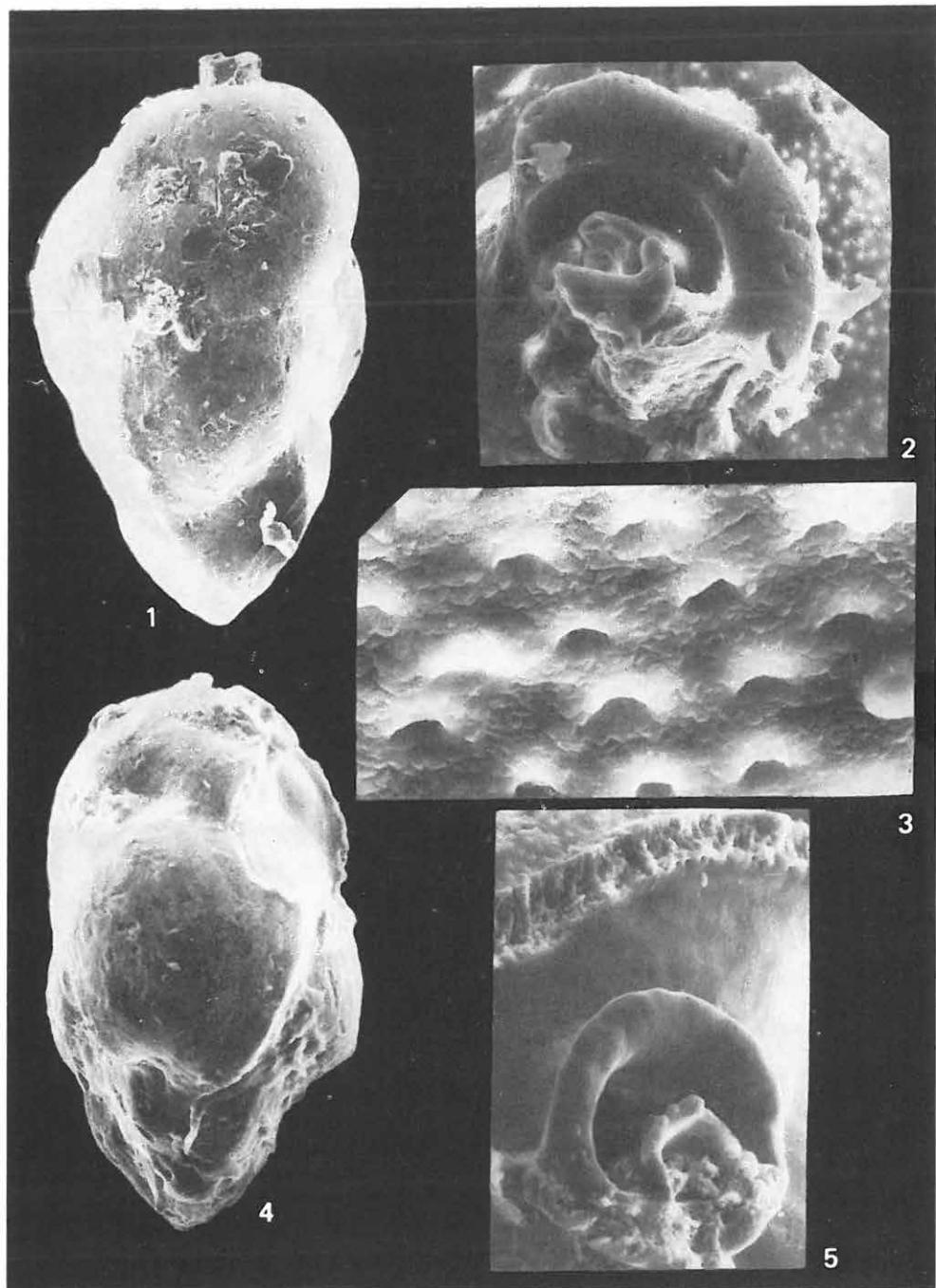
Oligocén

Uvigerina rudlingensis PAPP

Drégelypalánk 2. sz. f. 379,0—381,0 m

1. Totálkép — Total picture 130×
2. Szájnyílás felülnézetből — The aperture, top view 600×
3. Felszínrészlet perforációkkal — Detail of the surface with perforations 4000×
4. Totálkép (másik példány) — Total picture (another specimen) 180×
5. A szájnyílás felülnézetből — The aperture, top view 600×

SEMs



LX. tábla — Plate LX

Oligocén

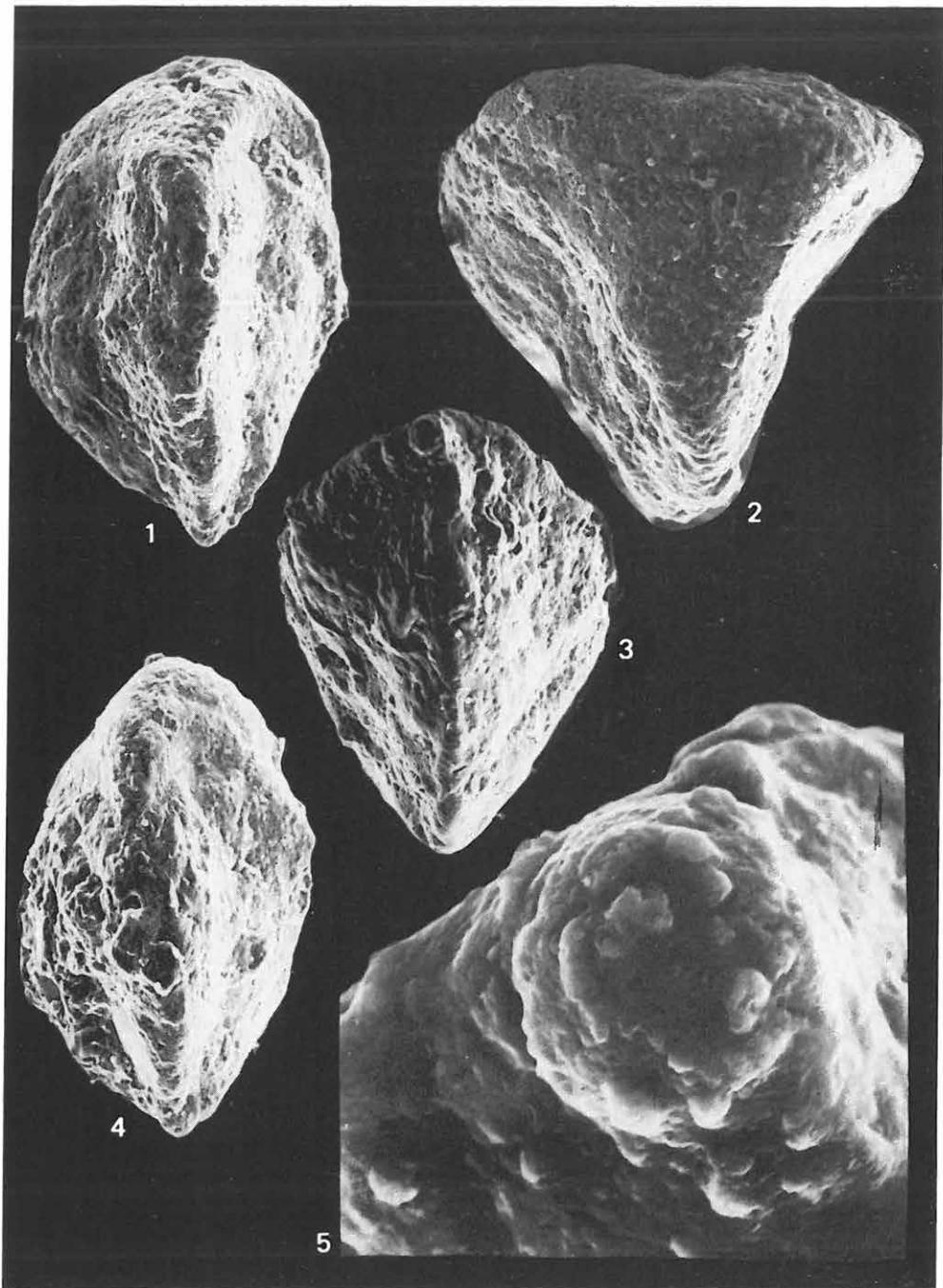
Trifarina budensis (HANTKEN)

Márianosztra 3. sz. f. 71,0—74,0 m

1. Totálkép — Total picture 200×
2. Felülnézet — Top view 300×
3. Totálkép (másik példány) — Top view (another specimen) 300×
4. Totálkép (harmadik példány) — Total picture (third specimen) 200×
5. A szájnyílás felülnézetből — The aperture, top view 3000×

SEMs





LXI. tábla — Plate LXI

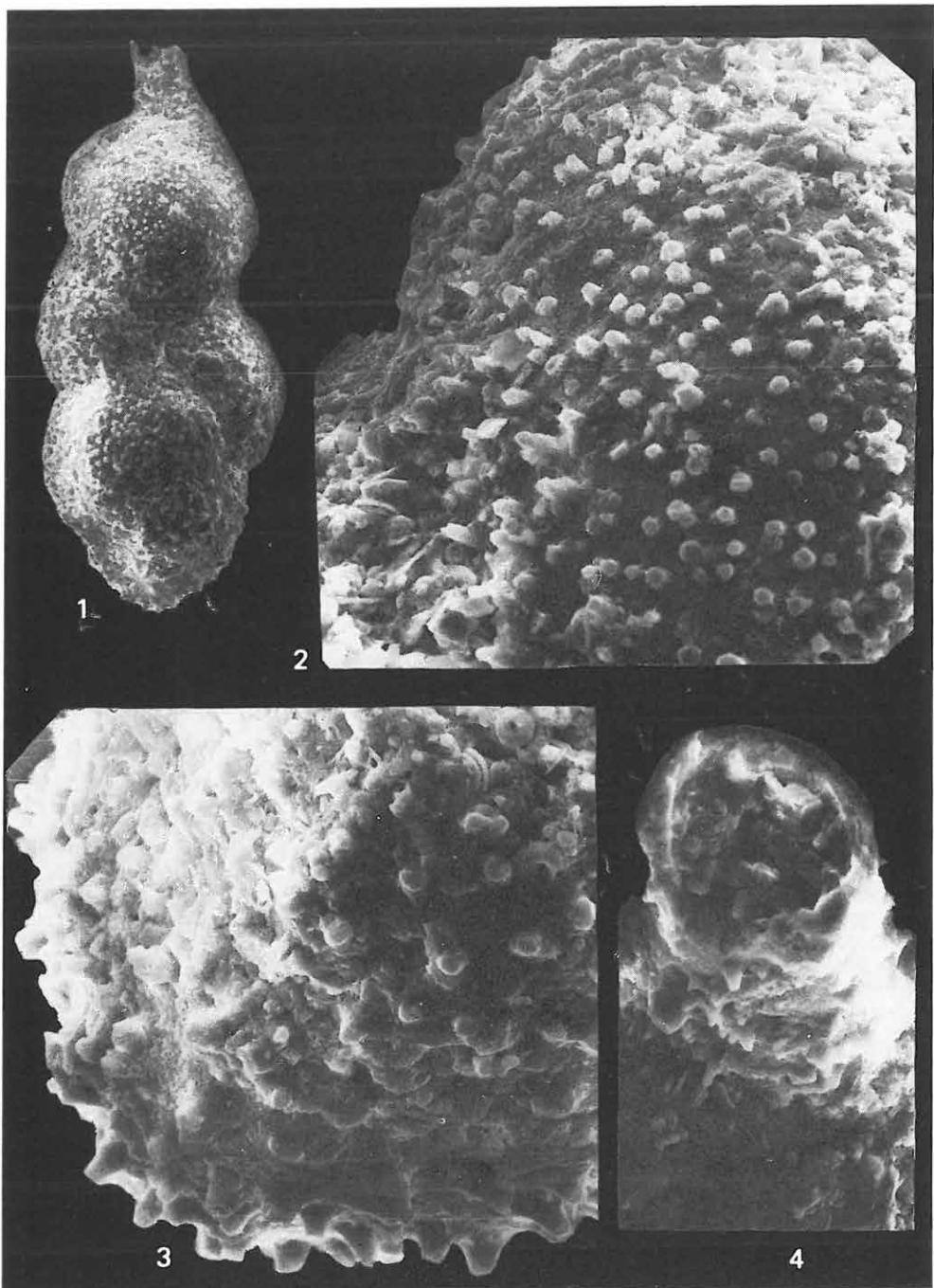
Oligocén

Trifarina gracilis (REUSS)

Drégelypalánk 2. sz. f. 426,0—428,0 m

1. Totálkép — Total picture 200×
2. Részlet gyöngydiszítéssel — Detail with pearl-like ornament 1000×
3. Részlet csipkeszerű széllel — Detail with lace-like border 1000×
4. A nyakon elhelyezkedő szájnyílás (törött) felülnézetben — A broken aperture on the neck, top view 860×

SEM-s



LXII. tábla — Plate LXI^y

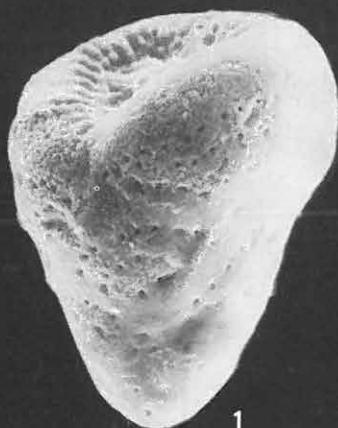
Oligocén

Discorbis patelliformis (BRADY)

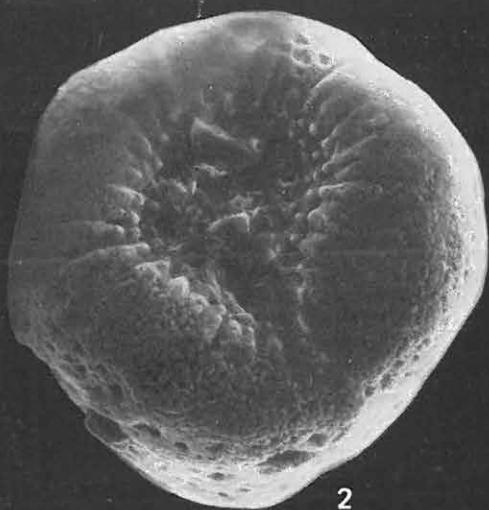
Drégelypalánk 2. sz. f. 440,0—442,0 m

1. Totálkép — Total picture 300×
2. Köldök oldal — Umbilical side 400×
3. Köldök oldal, részlet — Umbilical side, detail 1000×
4. Felszínrészlet — Detail of the surface 3000×

SEMs



1



2



3



4

LXIII. tábla — Plate LXIII

Oligocén

Cancris turgidus CUSHMAN et TODD

Drégelypalánk 2. sz. f. 454,0—456,0 m

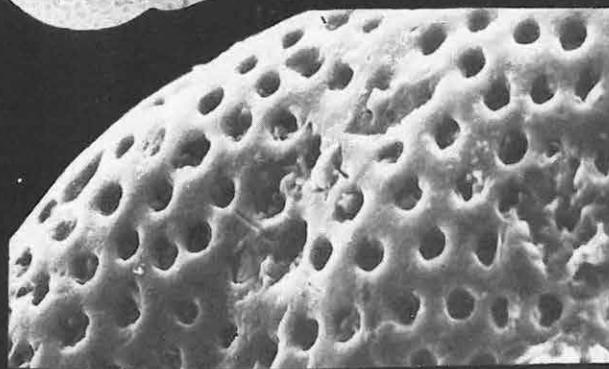
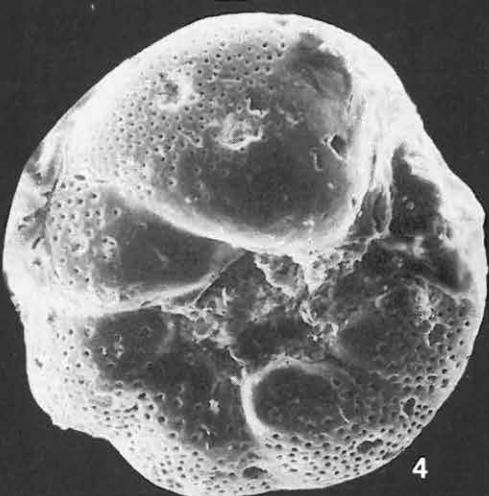
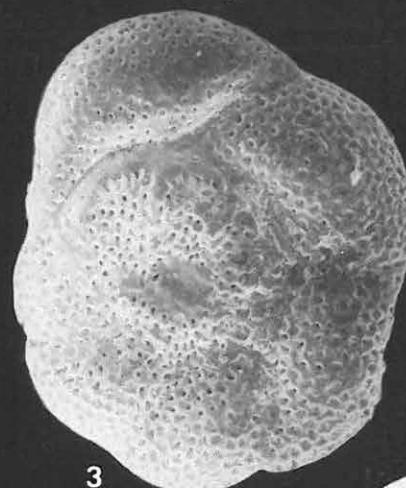
1. Totálkép, tekerces oldal — Total picture, dorsal side 200×
2. Totálkép, tekerces oldal (másik példány) — Total picture, dorsal side (another specimen) 200×

Discorbis cf. *globularis* (D'ORBIGNY)

Drégelypalánk 2. sz. f. 454,0—456,0 m

3. Totálkép, tekerces oldal — Total picture, dorsal side 100×
4. Totálkép, köldök oldal — Total picture, umbilical side 200×
5. A tekerces oldal felszíne a durva perforációkkal — Surface of the dorsal side with coarse perforations 1000×

SEM-s



LXIV. tábla — Plate LXIV

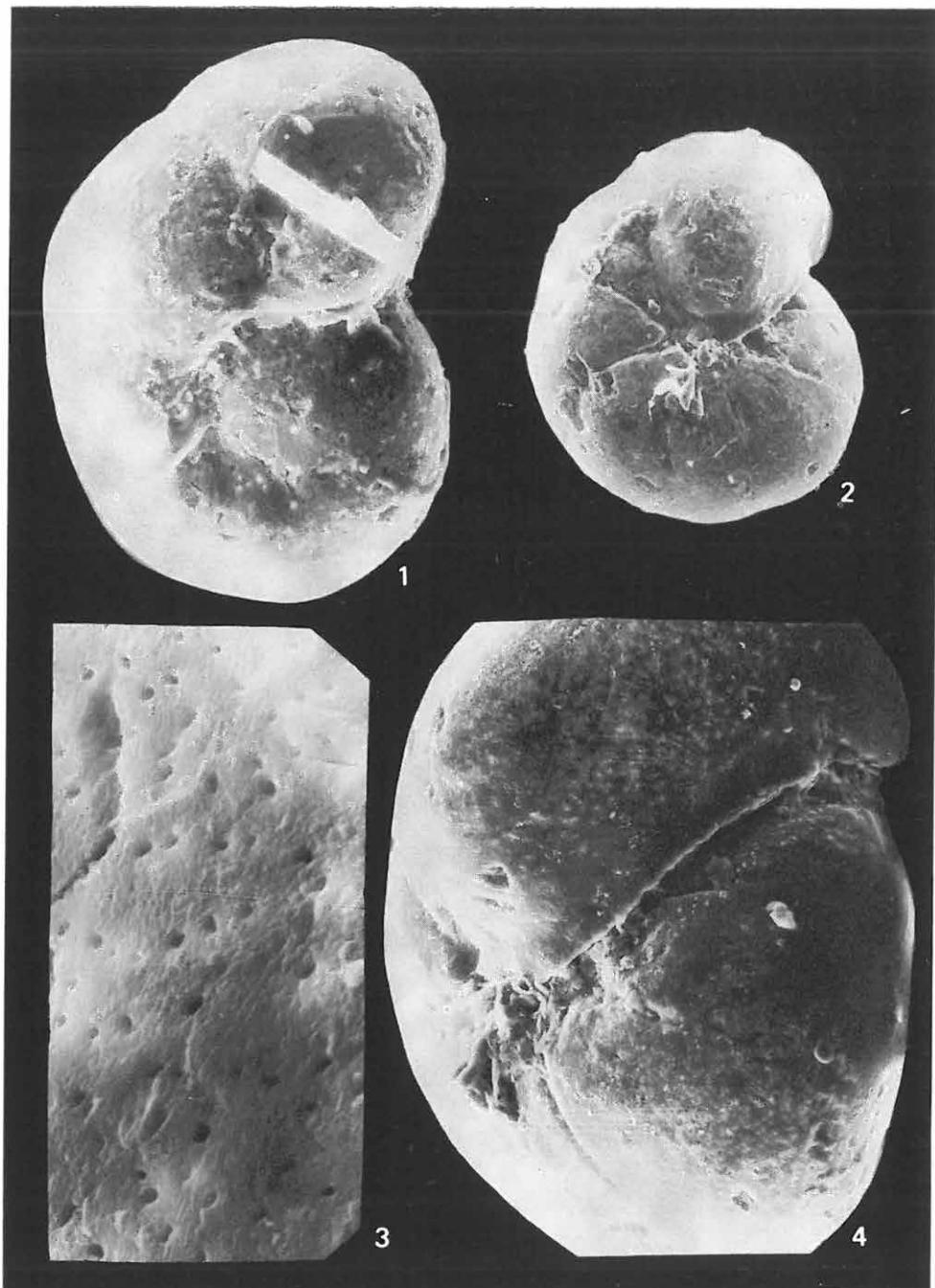
Oligocén

Valvularia complanata (D'ORBIGNY)

Márianosztra 3. sz. f. 86,0—87,0 m

1. Totálkép, tekercs oldal — Total picture, dorsal side $300\times$
2. Totálkép, köldök oldal — Total picture, umbilical side $200\times$
3. Felszínrészlet — Detail of the surface $4000\times$
4. Köldök oldal oldalnézetből — Umbilical side, lateral view $400\times$

SEM-s



LXV. tábla — Plate LXV

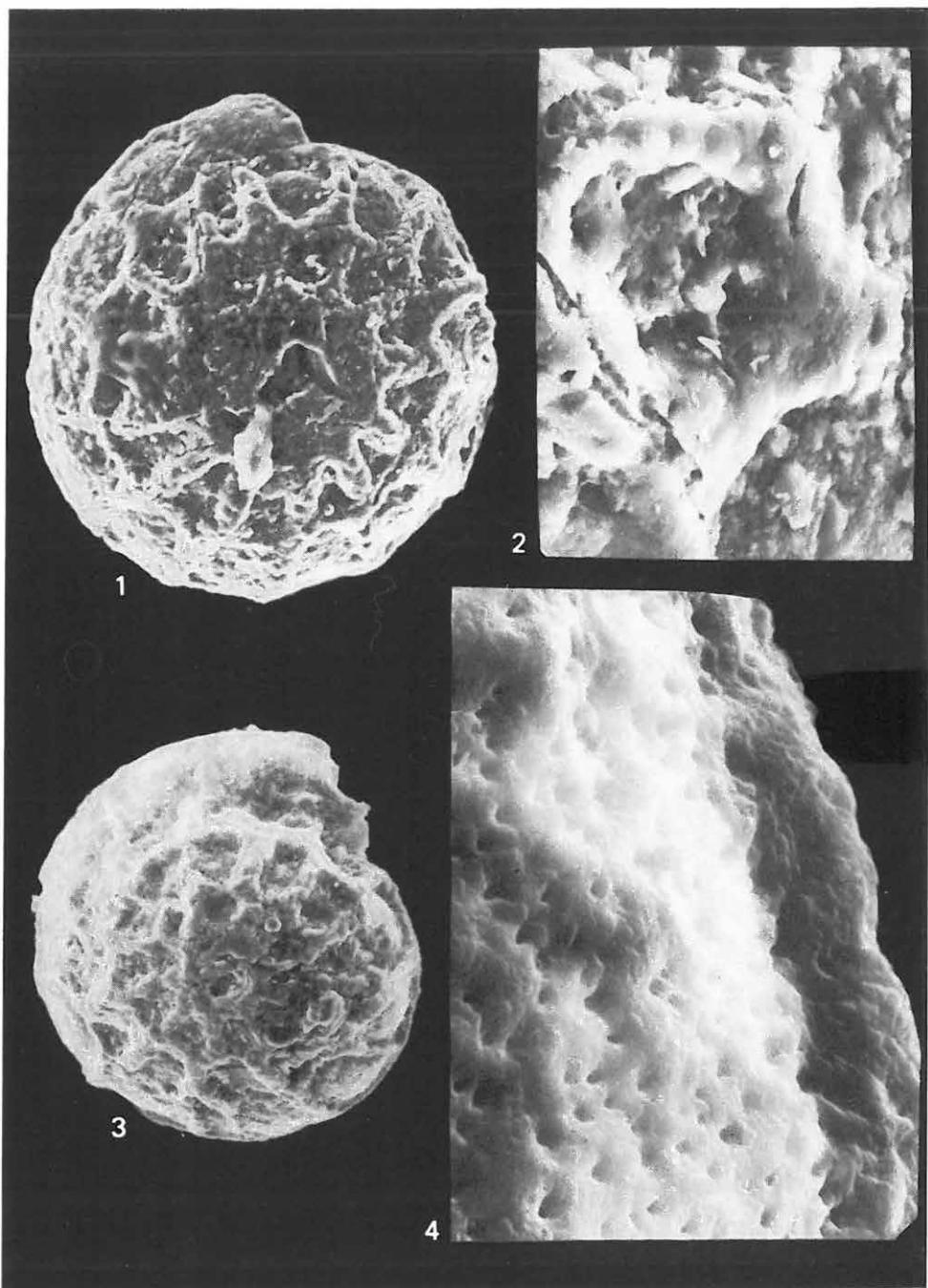
Oligocén

Escorneborina curvillieri (POIGNANT)

Drégelypalánk 2. sz. f. 464,0—466,0 m

1. Totálkép, tekercs oldal — Total picture, dorsal side 400×
2. Felszínrészlet — Detail of the surface 1500×
3. Totálkép, tekercs oldal (másik példány) — Total picture, dorsal side (another specimen) 300×
4. Felszínrészlet — Detail of the surface 6000×

SEMs



LXVI. tábla — Plate LXVI

Oligocén

Asterigerinoides mamillar (WILLIAMSON)

Drégelypalánk 2. sz. f. 426,0—428,0 m

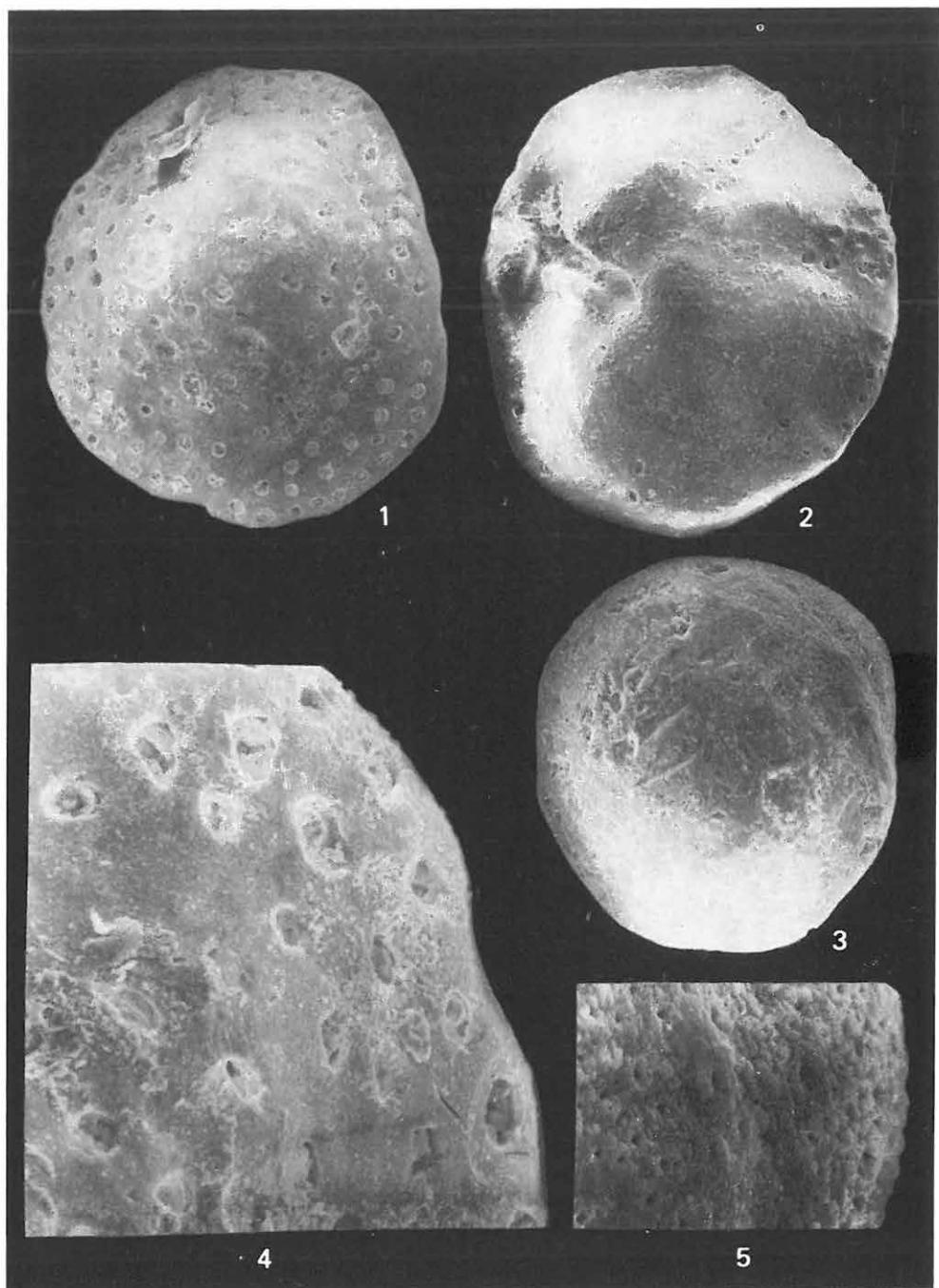
1. Totálkép, tekercs oldal — Total picture, dorsal side 320×
2. Totálkép, köldök oldal — Total picture, umbilical side 320×
4. Felszínrészlet, tekercs oldal — Detail of the surface, dorsal side 2600×

Asterigerinat aff. planorbis (D'ORBIGNY)

Kismaros 1. sz. f. 55,0—57,4 m

3. Totálkép — Total picture 200×
5. Felszínrészlet — Detail of the surface 1200×

SEMs



LXVII. tábla — Plate LXVII

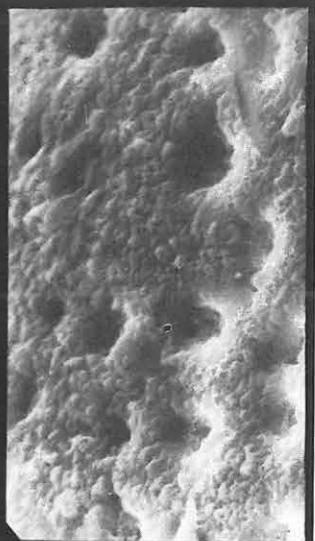
Oligocén

Asterigerina planorbis (D'ORBIGNY)

Diósjenő 7. sz. f. 62,8–65,0 m

1. Totálkép, tekeres oldal — Total picture, dorsal side 240×
2. Oldalnézet — Lateral view 300×
3. Felszínrészlet a perforációkkal — Detail of the surface with perforations 3000×
4. Totálkép, köldök oldal — Total picture, umbilical side 300×
5. A köldök oldalon levő szájnyílás — Aperture on the umbilical side 720×

SEMs



LXVIII. tábla — Plate LXVIII

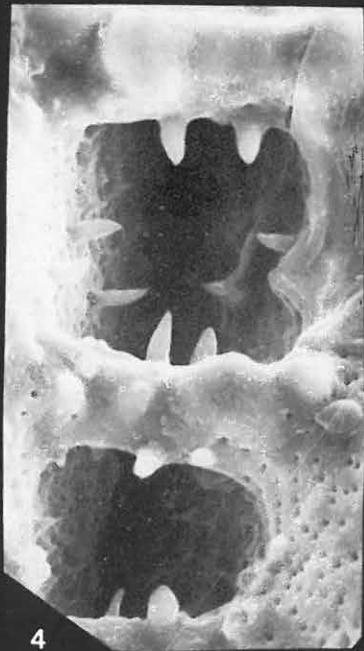
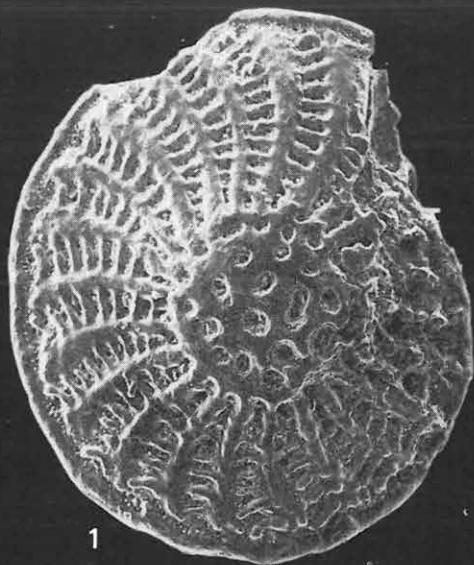
Oligocén

Elphidium carpathicum MYATLYUK

Diósjenő 7. sz. f. 100,0—102,0 m

1. Totálkép — Total picture 100×
2. A köldöknél levő lyuk tüskedíszítéssel — Foramen situated by the umbo with prickle ornament 1500×
3. Kamraválaszfalak közötti bordák — Ribs between the suturae 1000×
4. A bordák közötti tüskedíszítés — Prickle ornament between the ribs 2000×

SEMs



LXIX. tábla — Plate LXIX

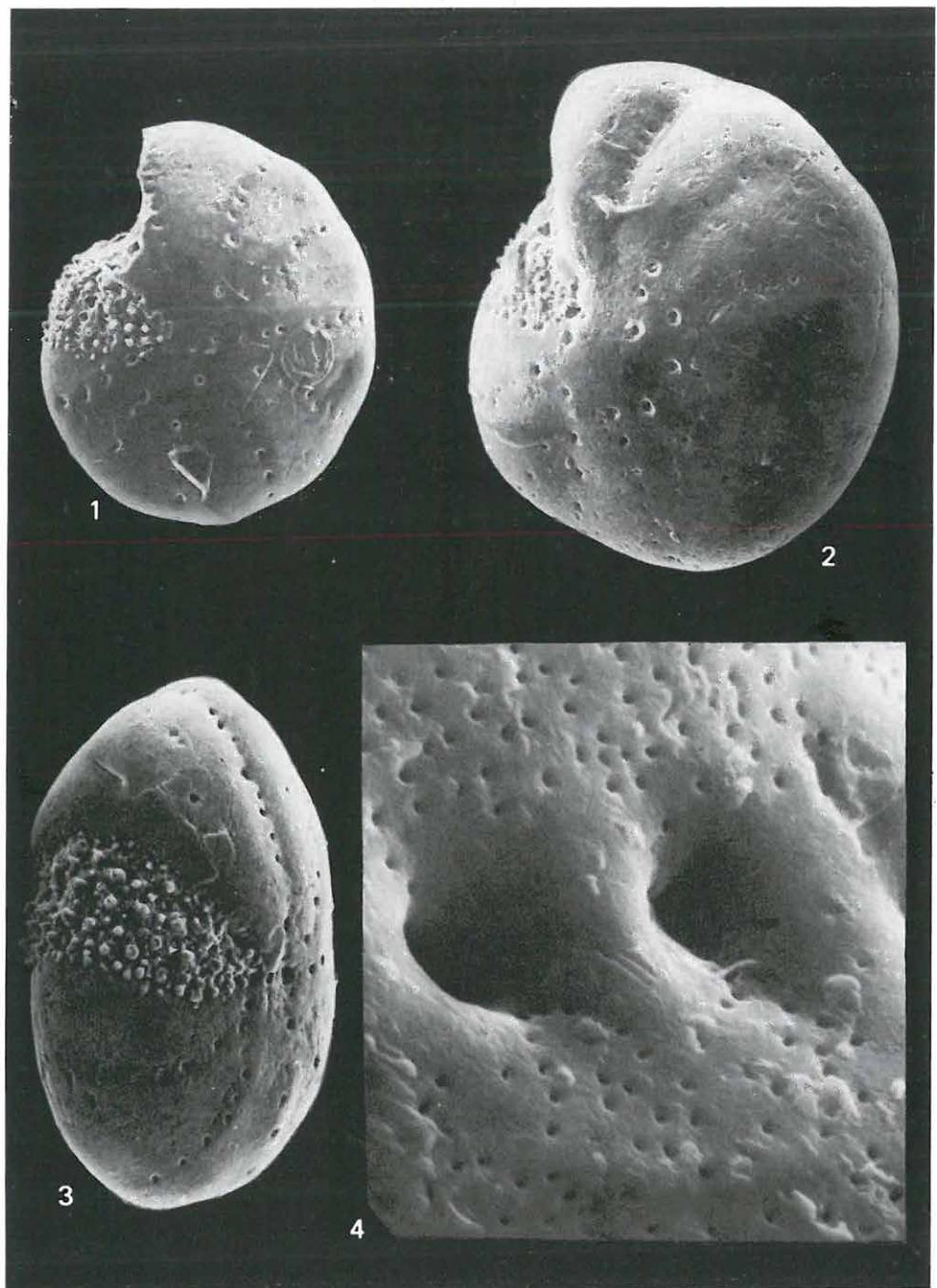
Oligocén

Cribrononion hiltermanni (HAGN)

Borsosberény 2. sz. f. 64,7—65,2 m

1. Totálkép — Total picture 200×
2. Totálkép (másik példány) — Total picture (another specimen) 200×
3. Oldalnézet a szájnyílással — Lateral view with the aperture 300×
4. Felület részlet — Detail of the surface 6000×

SEM-s



LXX. tábla — Plate LXX

Oligocén

Cribrononion subnodosum (ROEMER)

Borsosberény 2. sz. f. 72,5—77,6 m

1. Totálkép — Total picture 200×

2. Felszínrészlet — Detail of the surface 600×

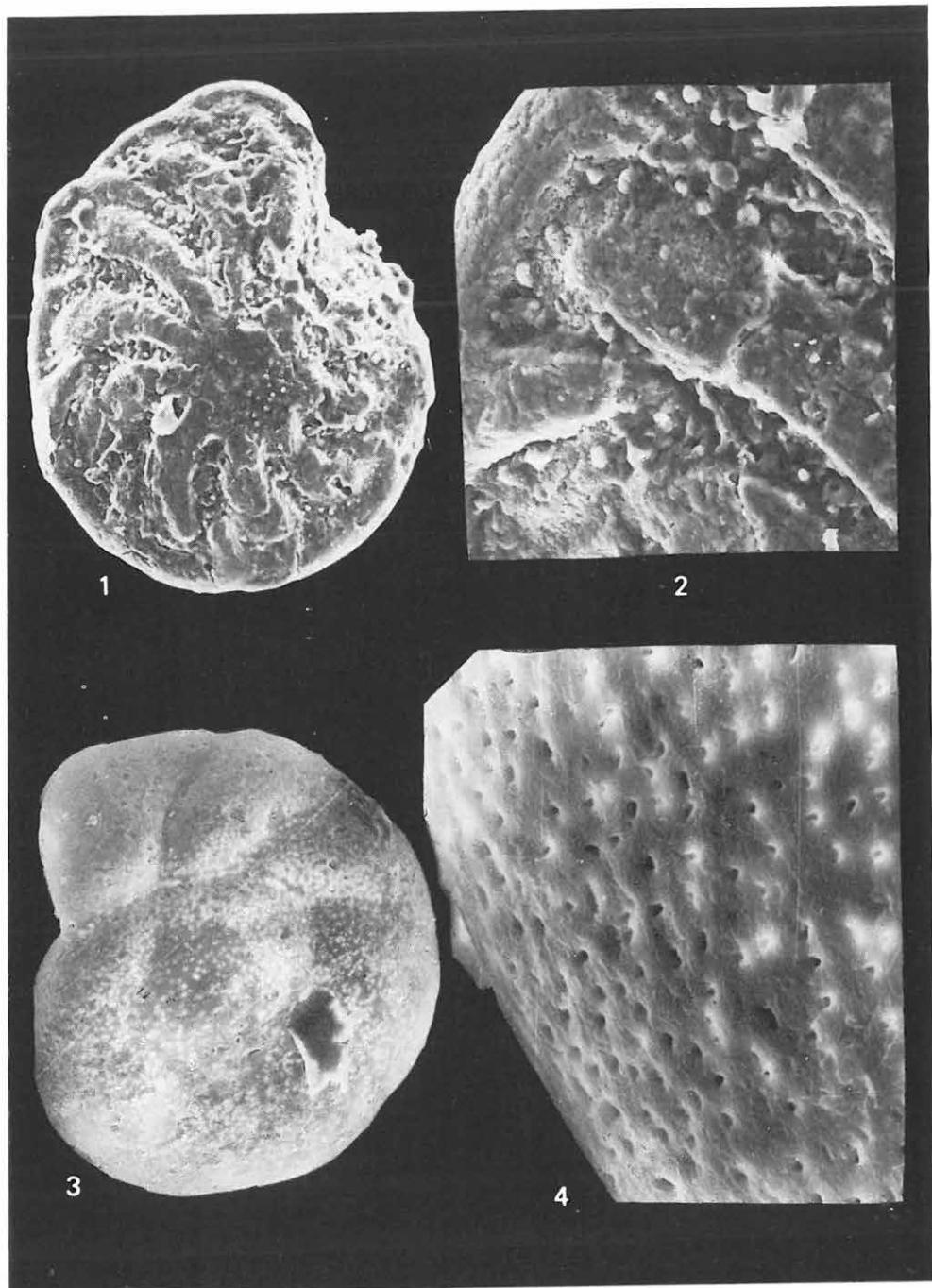
Rotalia propinqua (ROEMER)

Borsosberény 2. sz. f. 72,5—77,6 m

3. Totálkép, tekeres oldal — Total picture, dorsal side 220×

4. Perforált felszínrészlet — Perforated detail of the surface 2000×

SEMs



LXXI. tábla — Plate LXXI

Oligocén

Eponides budensis (HANTKEN)

Drégelypalánk 2. sz. f. 440,0—442,0 m

1. Totálkép, tekercs oldal — Total picture, dorsal side 200×
2. Totálkép, köldök oldal — Total picture, umbilical side 200×
3. Köldök oldal a szájnyílással — Umbilical side with the aperture 200×
4. A szájnyílás — The aperture 1000×

SEM-s



1



2



3



4

LXXII. tábla — Plate LXXII

Oligocén

Anomalinoides granosus (HANTKEN)

Berkenye 4. sz. f. 74,0—76,0 m

1. Totálkép — Total picture 160×
2. Felszínrészlet — Detail of the surface 1000×

Cibicides sp.

Berkenye 4. sz. f. 74,0—76,0 m

3. Totálkép — Total picture 100×
4. Felszínrészlet — Detail of the surface 300×
5. Felszínrészlet a kamrák találkozásánál — Detail of the surface at the junction of the chambers 1000×

SEMs



LXXIII. tábla — Plate LXXIII

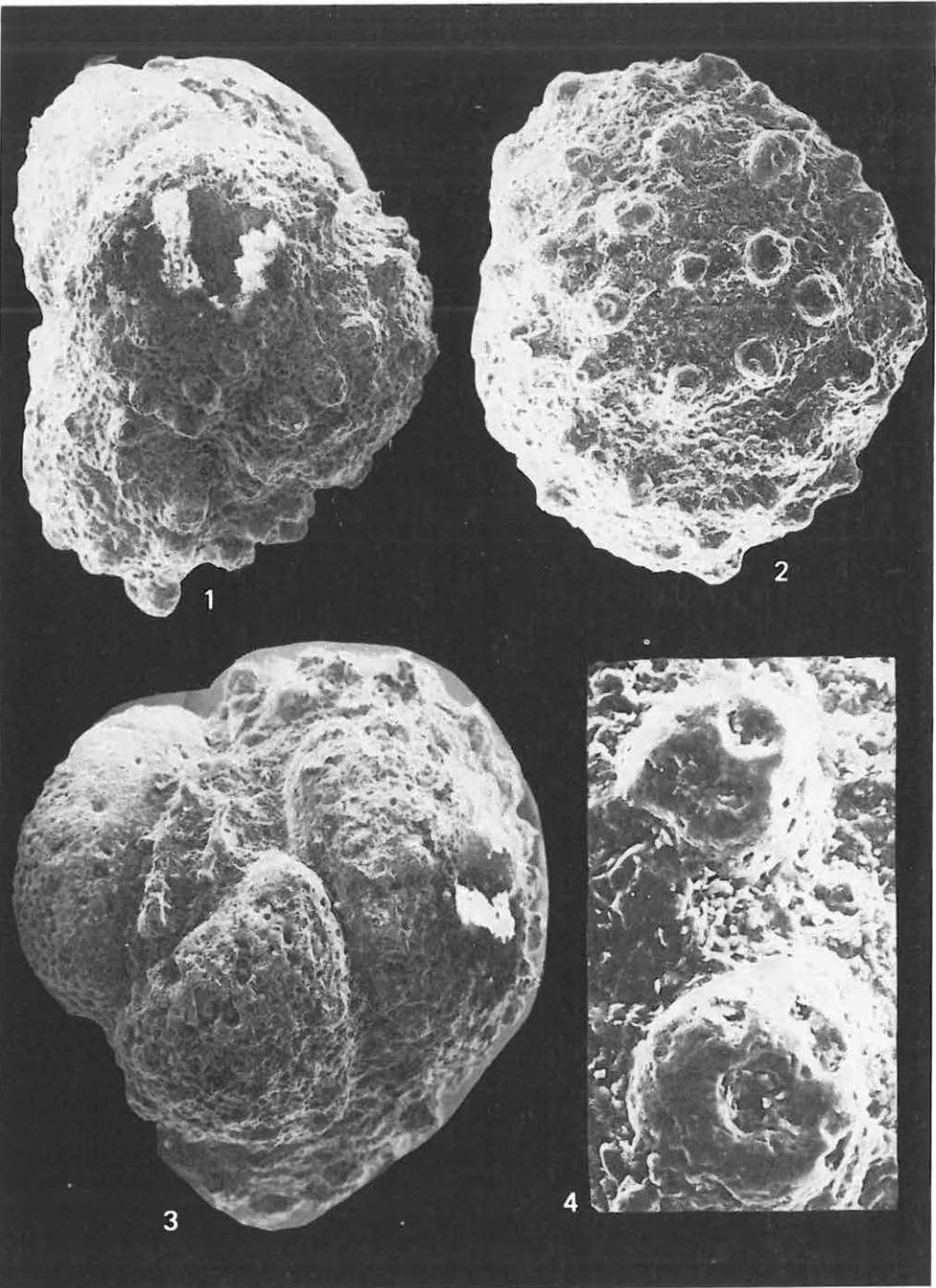
Oligocén

Viktoriella abnormis (HANTKEN)

Drégelypalánk 2. sz. f. 479—481,3 m

1. Totálkép — Total picture 78×
2. Törédék külső oldala — Fragmented out side 100×
3. Felülnézet — Top view 94×
4. Díszítés részlet — Detail of the ornament 400×

SEMs



LXXIV. tábla — Plate LXXIV

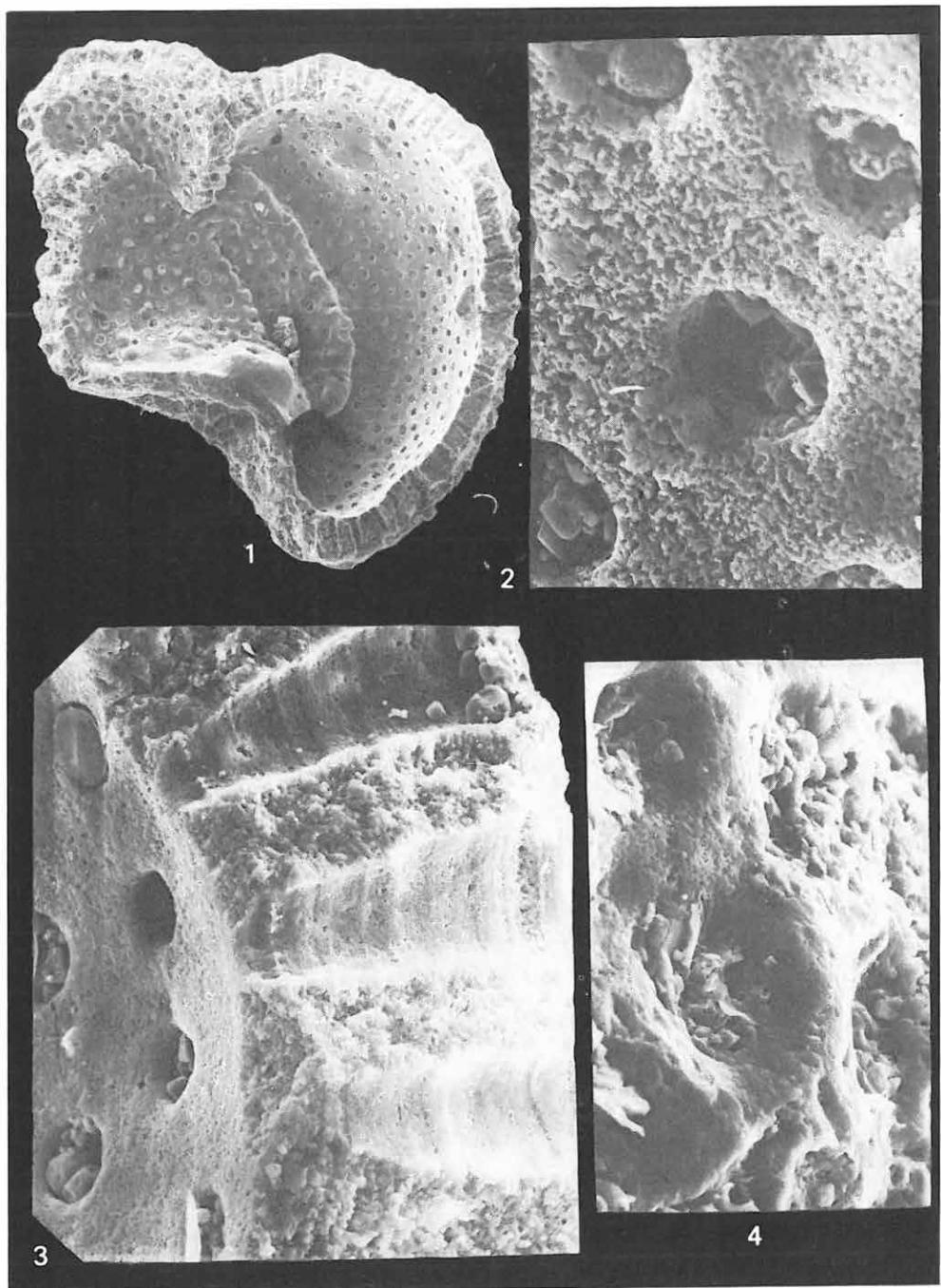
Oligocén

Viktoriella abnormis (HANTKEN)

Drégelypalánk 2. sz. f. 479,0—481,3 m

1. Töredék belső oldal a perforációkkal — Fragmented ventral side with the perforation $130\times$
2. Részlet a perforált belső felszínről — Detail of the perforated interior surface $1000\times$
3. Falszerkezet — Wall structure $440\times$
4. Részlet — Detail $2000\times$

SEM-s



LXXV. tábla — Plate LXXV

Oligocén

Cassidulina vitalisi MAJZON

Berkenyé 4. sz. f. 118,0—120,0 m

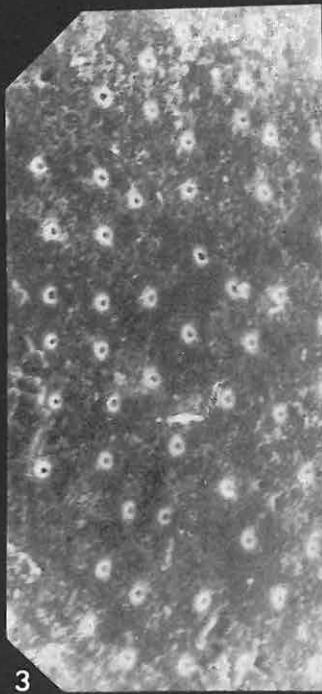
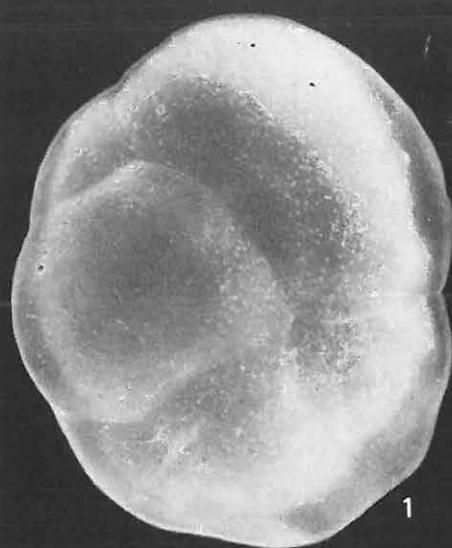
1. Totálkép, tekercs oldal — Total picture, dorsal side 320×

2. Totálkép, köldök oldal — Total picture, umbilical side 260×

3. Felületrészlet — Detail of the surface 1800×

4. Részlet a kamraválaszfalak perem kifutásáról — Detail of the junction of the suturae on the periphery 1600×

SEMs



LXXVI. tábla — Plate LXXVI

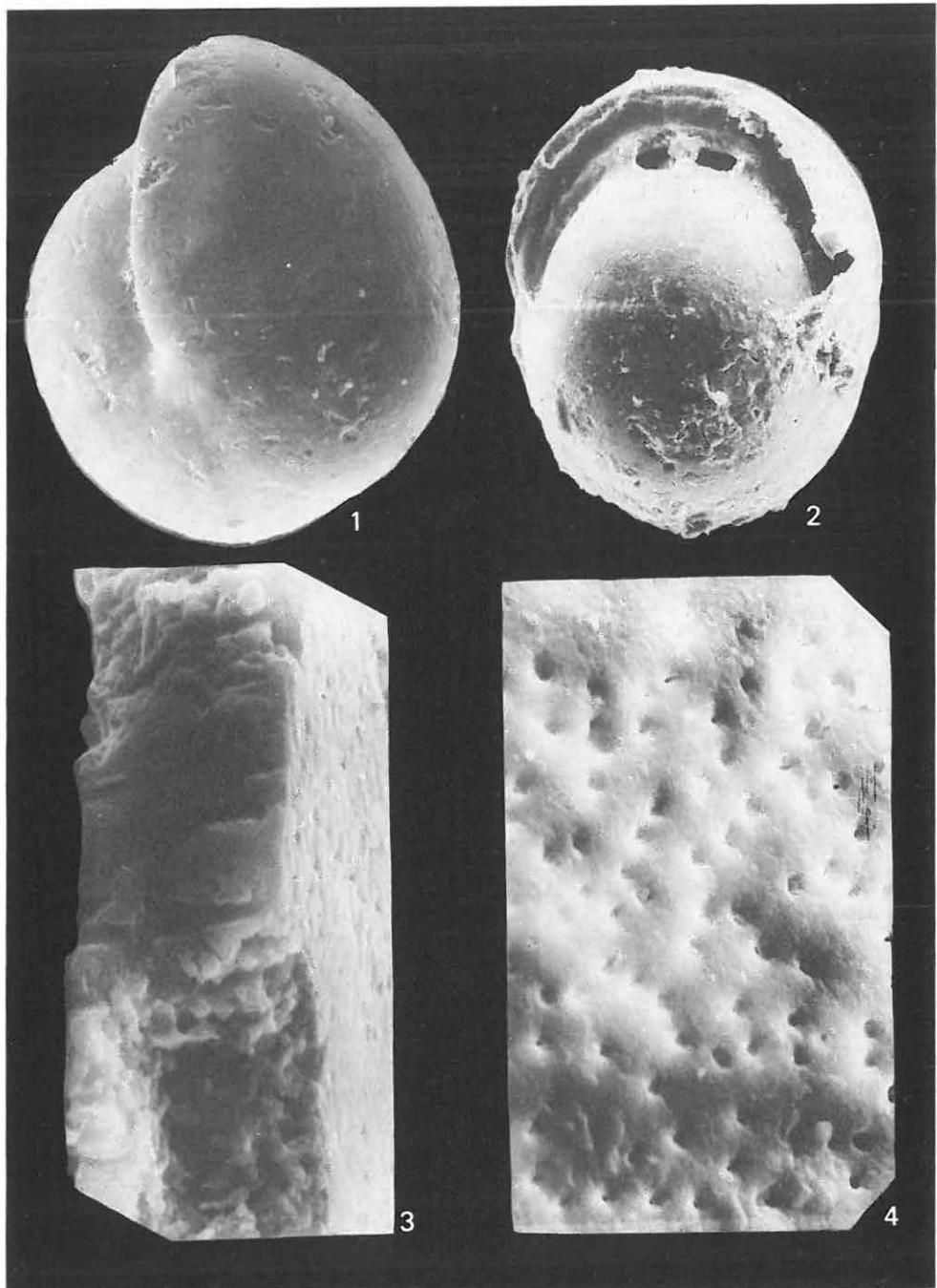
Oligocén

Pullenia bulloides (d'ORBIGNY)

Berkenye 4. sz. f. 124,0–126,0 m

1. Totálkép — Total picture 260×
2. Oldalnézet a szájnyíllással — Lateral view with the aperture 200×
3. Falszerkezet — Wall structure 6000×
4. Felszínrészlet — Detail of the surface 4000×

SEMs



LXXVII. tábla — Plate LXXVII

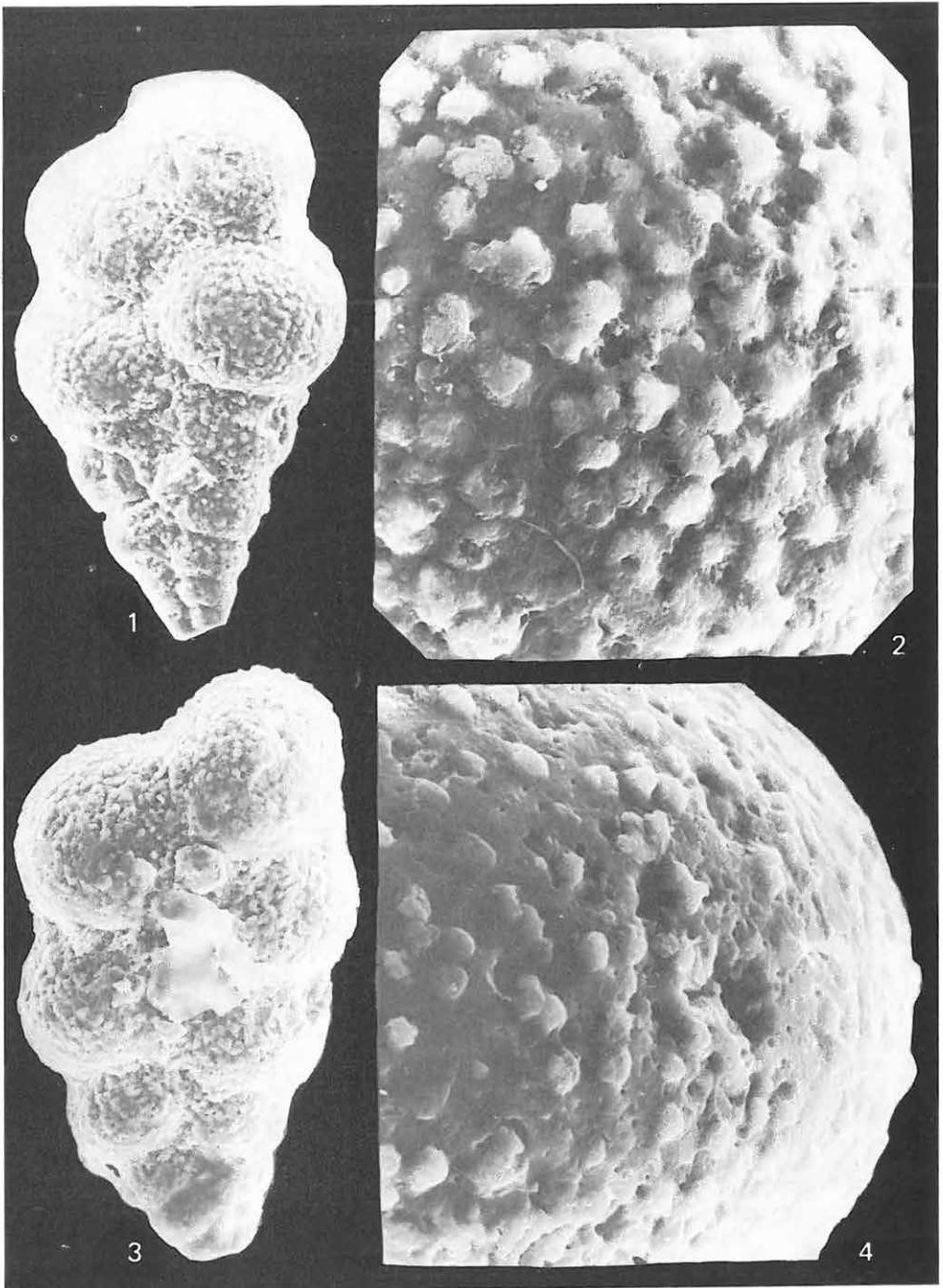
Oligocén

Chiloguembelina gracillima (ANDREAE)

Berkenye 4. sz. f. 233,0—261,0 m

1. Totálkép — Total picture 320×
2. Pórusokkal díszített felszín — Surface ornamented with pores 1800×
3. Totálkép (másik példány) — Total picture (another specimen) 360×
4. Pórusokkal díszített felszín — Surface ornamented with pores 1800×

SEMs

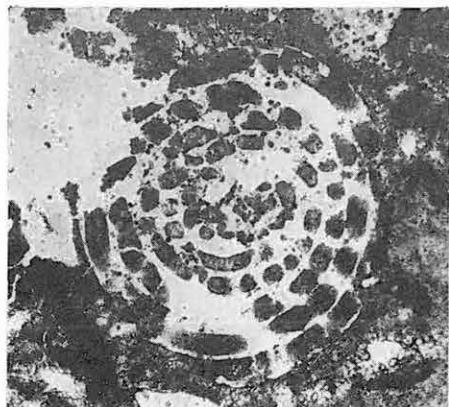


LXXVIII. tábla — Plate LXXVIII

Alsó-bádeni — Lower Badenian

Partszegélyi lajtamészkő fáciés — Near-shore limestone facies

- 1—2. *Borelis melo* (FICHTEL—MOLL) 100×
Szokolya, Szőlő-hegy DK-i nyúlványa
3. *Bolivina dilatata* REUSS, *Globigerina* sp. 30×
Szokolya, Szőlő-hegy DK-i nyúlványa
4. *Echinodermata* tüske keresztmetszete 30×
Szokolya, Szőlő-hegy DK-i nyúlványa
5. *Cibicidoides ungerianus* (d'ORBIGNY) 60×
Szokolya, Szőlő-hegy DK-i nyúlványa
6. *Textularia abbreviata* d'ORBIGNY 70×
Szokolya, Szőlő-hegy DK-i nyúlványa
7. *Siphonostularia concava* (KARRER) 70×
Szokolya, Szőlő-hegy DK-i nyúlványa



1



2



3



4



5



6



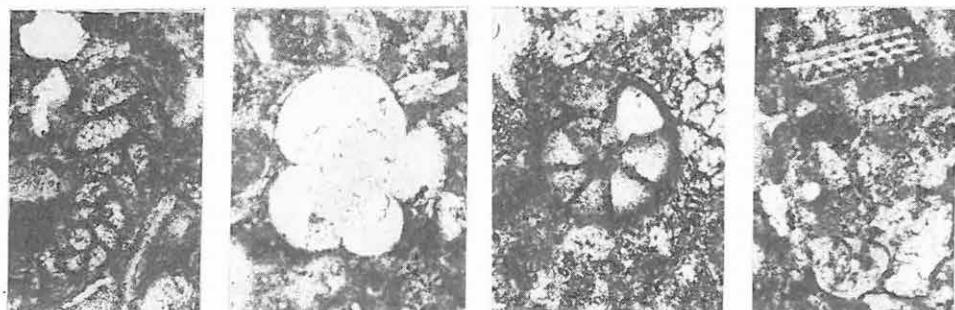
7

LXXIX. tábla — Plate LXXIX

Alsó-bádeni — Lower Badenian

Partszegélyi lajtamészko fácies — Near-shore limestone facies

1. *Bolivina arta* MACFADYEN 50×
Szokolya, Szőlő-hegy D-i nyúlványa, dűlőút mellett, szántóföld
2. *Globigerinoides triloba* (REUSS) 50×
Szokolya, Szőlő-hegy D-i nyúlványa, dűlőút mellett, szántóföld
3. *Gyroidinoides soldanii* (D'ORBIGNY) 30×
Szokolya, Szőlő-hegy D-i nyúlványa, dűlőút mellett, szántóföld
4. Echinodermata tüske, *Discorbis* sp. 20×
Szokolya, Szőlő-hegy D-i nyúlványa, dűlőút mellett, szántóföld
5. *Globorotalia Mayeri* CUSHMAN—ELLISOR 50×
Szokolya, Szőlő-hegy D-i nyúlványa, dűlőút mellett, szántóföld
6. *Globigerina foliata* BOLLI, *Hopkinsina bononiensis* (FORNASINI), *Globigerinoides triloba* (REUSS) 50×
Szokolya, Szőlő-hegy D-i nyúlványa, dűlőút mellett, szántóföld
7. *Cassidulinoides bradyi* (NORMAN), *Gyroidinoides soldanii* (D'ORBIGNY), korall-metszetek
70×
Szokolya, Szőlő-hegy D-i nyúlványa, dűlőút mellett, szántóföld



1

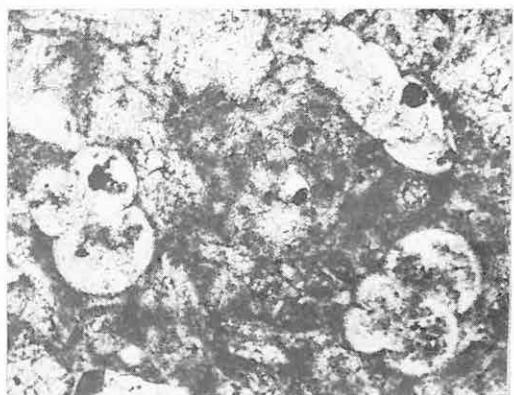
2

3

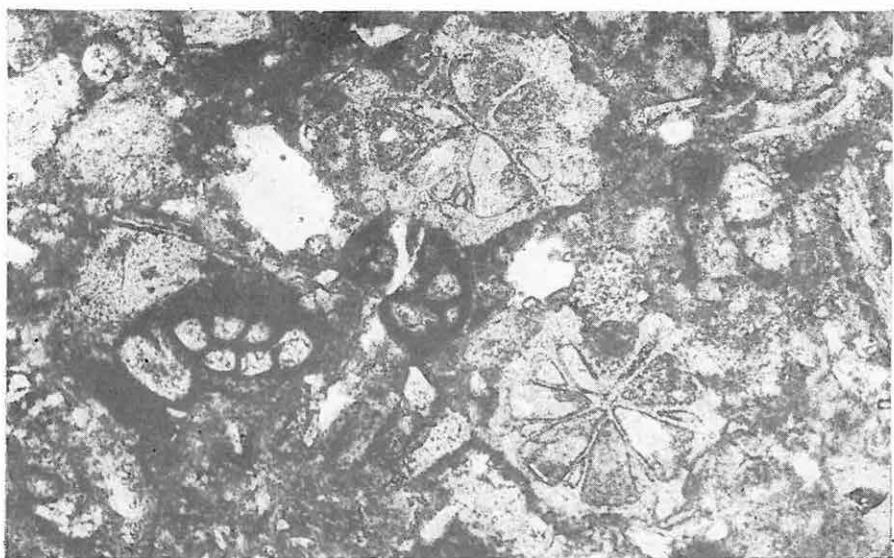
4



5



6



7

LXXX. tábla — Plate LXXX

Alsó-bádeni — Lower Badenian

Partszegélyi lajtamészkő fáciés — Near-shore limestone facies

1. *Amphistegina hauerina* d'ORBIGNY 60×
Szokolya, 380-as csúcs ÉK-i oldala
2. *Lenticulina cultrata* (MONTFORT) 50×
Szokolya, 380-as csúcs ÉK-i oldala
3. *Triloculina tricarinata* d'ORBIGNY 30×
Szokolya, 380-as csúcs ÉK-i oldala
4. *Textularia pala* CŽŽEK 70×
Szokolya, 380-as csúcs ÉK-i oldala
5. *Amphistegina hauerina* d'ORBIGNY 100×
Szokolya, 380-as csúcs ÉK-i oldala



1



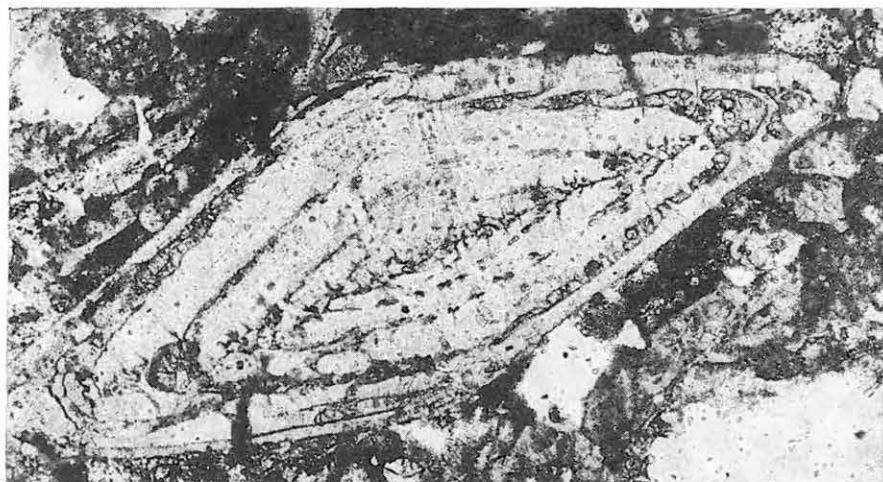
2



3



4



5

LXXXI. tábla — Plate LXXXI

Alsó-bádeni — Lower Badenian

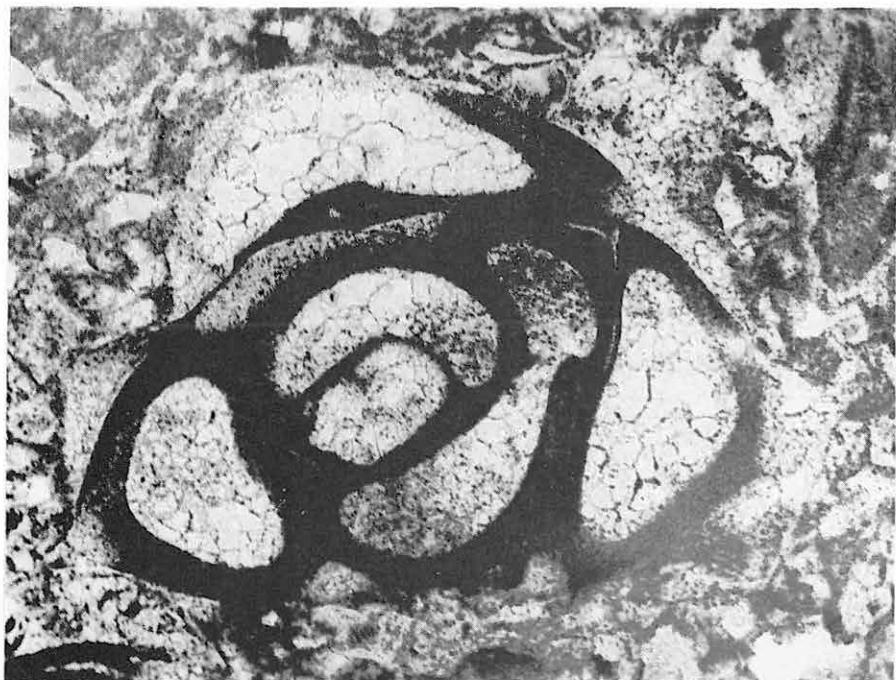
Partszegélyi lajtamészkő fácius — Near-shore limestone facies

1. *Quinqueloculina buchiana* d'ORBIGNY 200×

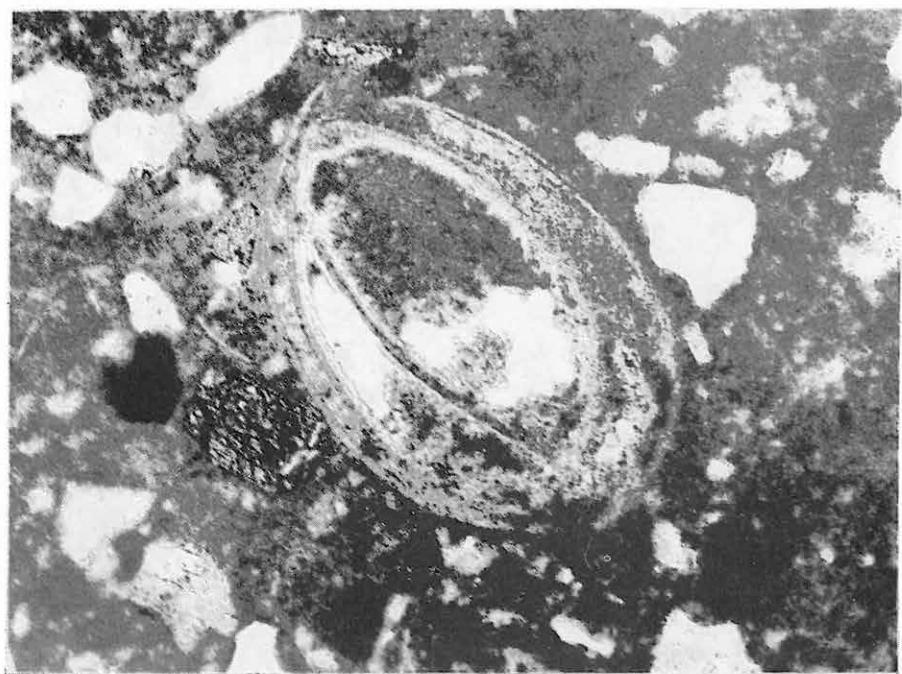
Szokolya 2. sz. fúrástól D-re 300 m

2. *Quinqueloculina seminula* (LINNE) 150×

Szokolya 2. sz. fúrástól D-re 300 m



1



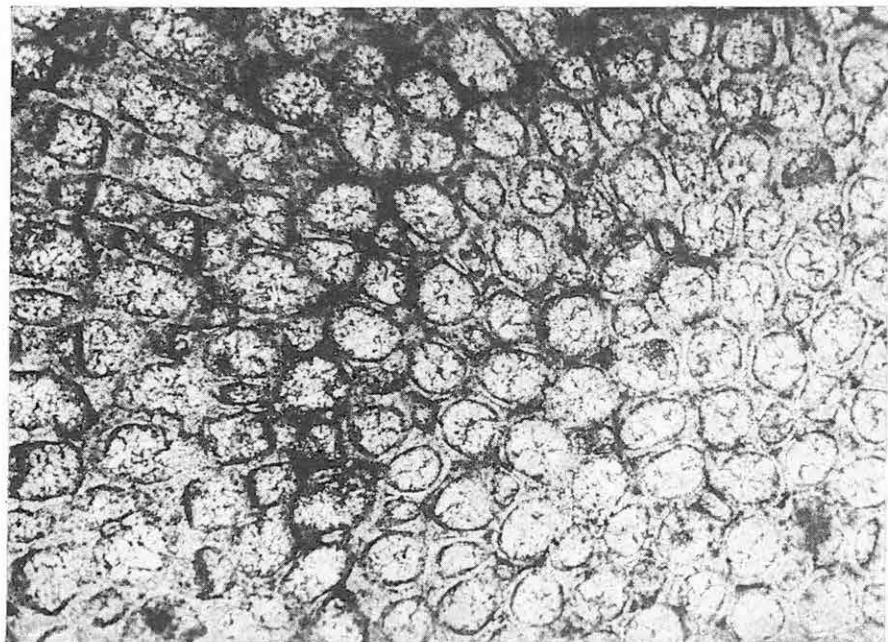
2

LXXXII. tábla — Plate LXXXII

Alsó-bádeni — Lower Badenian

Partszegélyi lajtamészkő fácies — Near-shore limestone facies

1. Bryozoa metszet 60×
Szokolya, Szóló-hegy DNy-i pihenő, háromszögelési pont
2. *Lithothamnium* sp. metszet 70×
Szokolya, Szóló-hegy DNy-i pihenő, háromszögelési pont



1



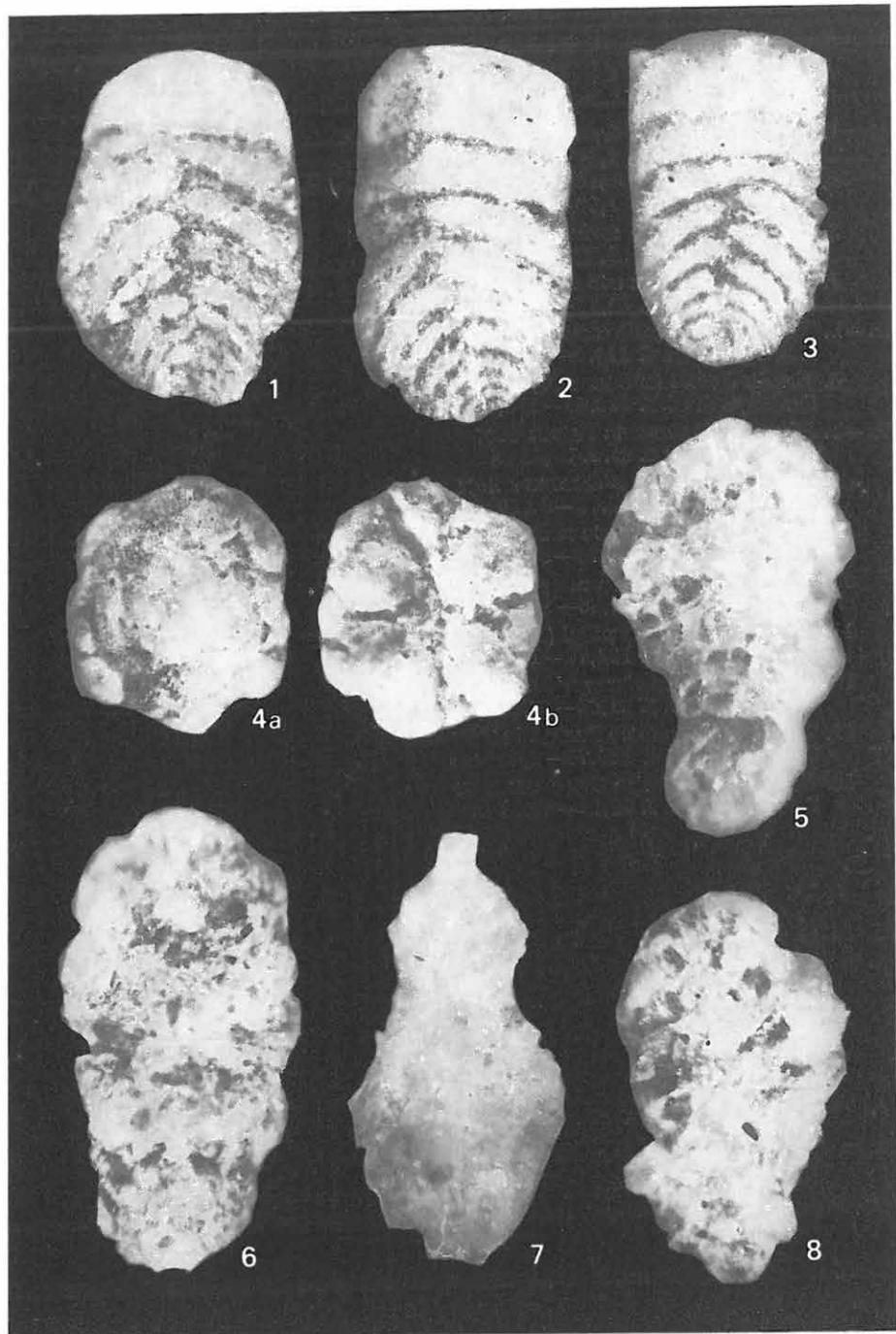
2

LXXXIII. tábla — Plate LXXXIII

Alsó-bádeni — Lower Badenian

Partközeli fácies — Near-shore facies

- 1—3. *Vulvulina pinnatula* (BATSCH) 60×
Nagybörzsöny 8. sz. f. 120,00 m
- 4a—b. *Cymbalopora poeyi* d'ORBIGNY 70×
Szokolya 2. sz. f. 91,00—93,00 m
5. *Reophax depressa* NATLAND 70×
Szokolya 2. sz. f. 91,00—93,00 m
6. *Reophax compressa* (GOES) 40×
Szokolya 2. sz. f. 91,00—93,00 m
7. *Reophax ampullacea* BRADY 40×
Szokolya 2. sz. f. 91,00—93,00 m
8. *Reophax nothi* MACFADYEN 40×
Szokolya 2. sz. f. 91,00—93,00 m

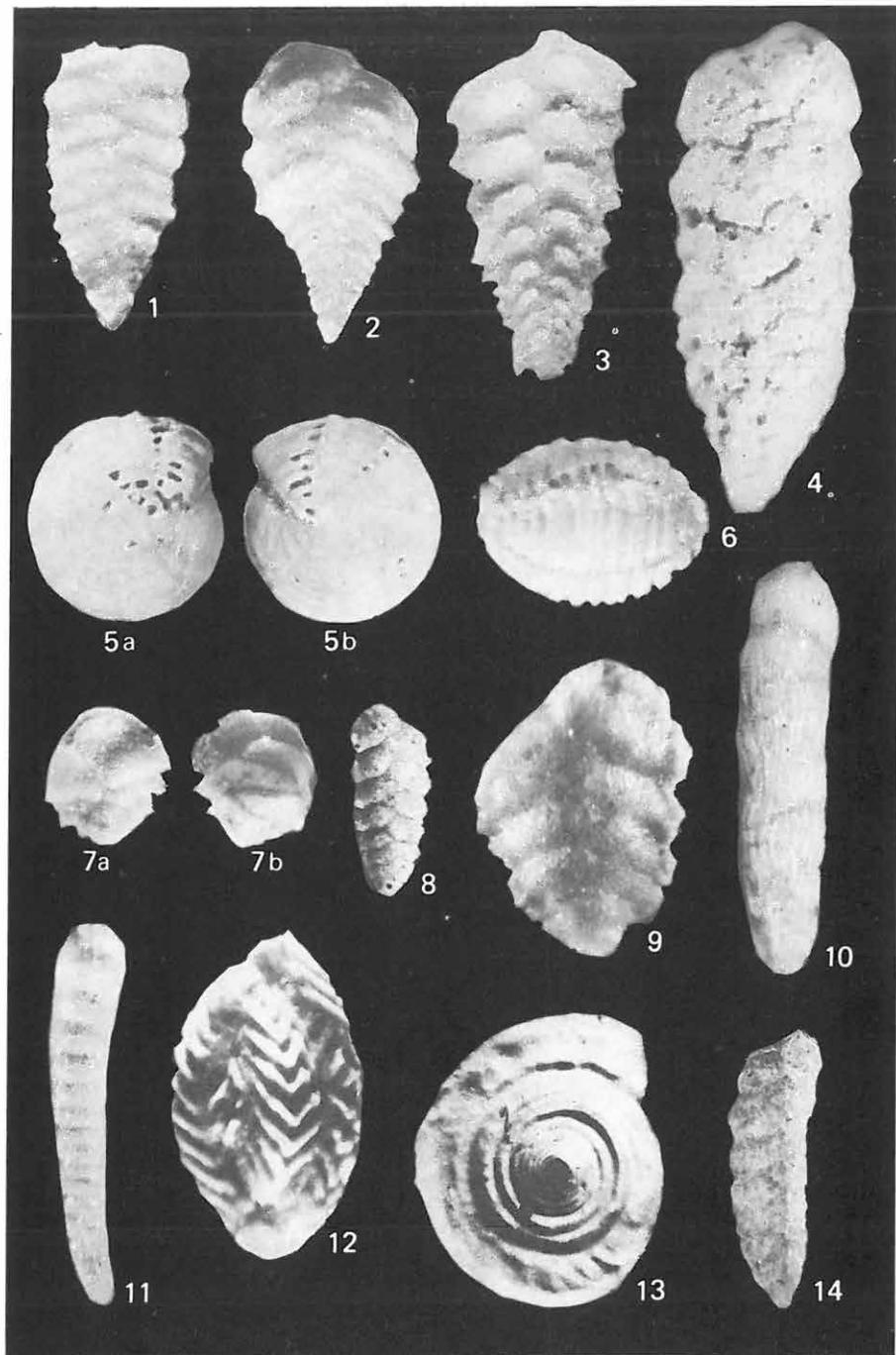


LXXXIV. tábla — Plate LXXXIV

Alsó-bádeni — Lower Badenian

Partközeli fácies — Near-shore facies

1. *Spiroplectammina deperdita* (d'ORBIGNY) 30×
Szokolya 2. sz. f. 91,00—93,00 m
2. *Spiroplectammina pectinata* (REUSS) 30×
Szokolya 2. sz. f. 91,00—93,00 m
3. *Spiroplectammina carinata* (d'ORBIGNY) 30×
Szokolya 2. sz. f. 91,00—93,00 m
4. *Gaudryina inter juncta* CUSHMAN 50×
Szokolya 2. sz. f. 91,00—93,00 m
- 5a—b. *Borelis rotella* (d'ORBIGNY) 30×
Szokolya 2. sz. f. 112,0—114,00 m
6. *Borelis haueri* (d'ORBIGNY) 30×
Szokolya 2. sz. f. 102,00—104,70 m
- 7a—b. *Ehrenbergina serrata* REUSS 40×
Nagybörzsöny 8. sz. f. 88,90 m
8. *Textularia mariae* d'ORBIGNY 30×
Szokolya 2. sz. f. 56,70—57,50 m
9. *Textularia subangulata* d'ORBIGNY 50×
Szokolya 2. sz. f. 56,70—57,50 m
10. *Loxostomum striatum* n. sp. 60×
Szokolya 2. sz. f. 81,50—82,30 m
11. *Rectobolivina zsigmondyi* (HANTKEN) 40×
Szokolya 2. sz. f. 104,70—106,40 m
12. *Quinqueloculina zigzag* d'ORBIGNY 40×
Szokolya 2. sz. f. 91,00—93,00 m
13. *Cyclogyra tasmanica* PARR 60×
Szokolya 2. sz. f. 104,70—106,40 m
14. *Gaudryina atlantica* CUSHMAN 30×
Szokolya 2. sz. f. 91,00—93,00 m

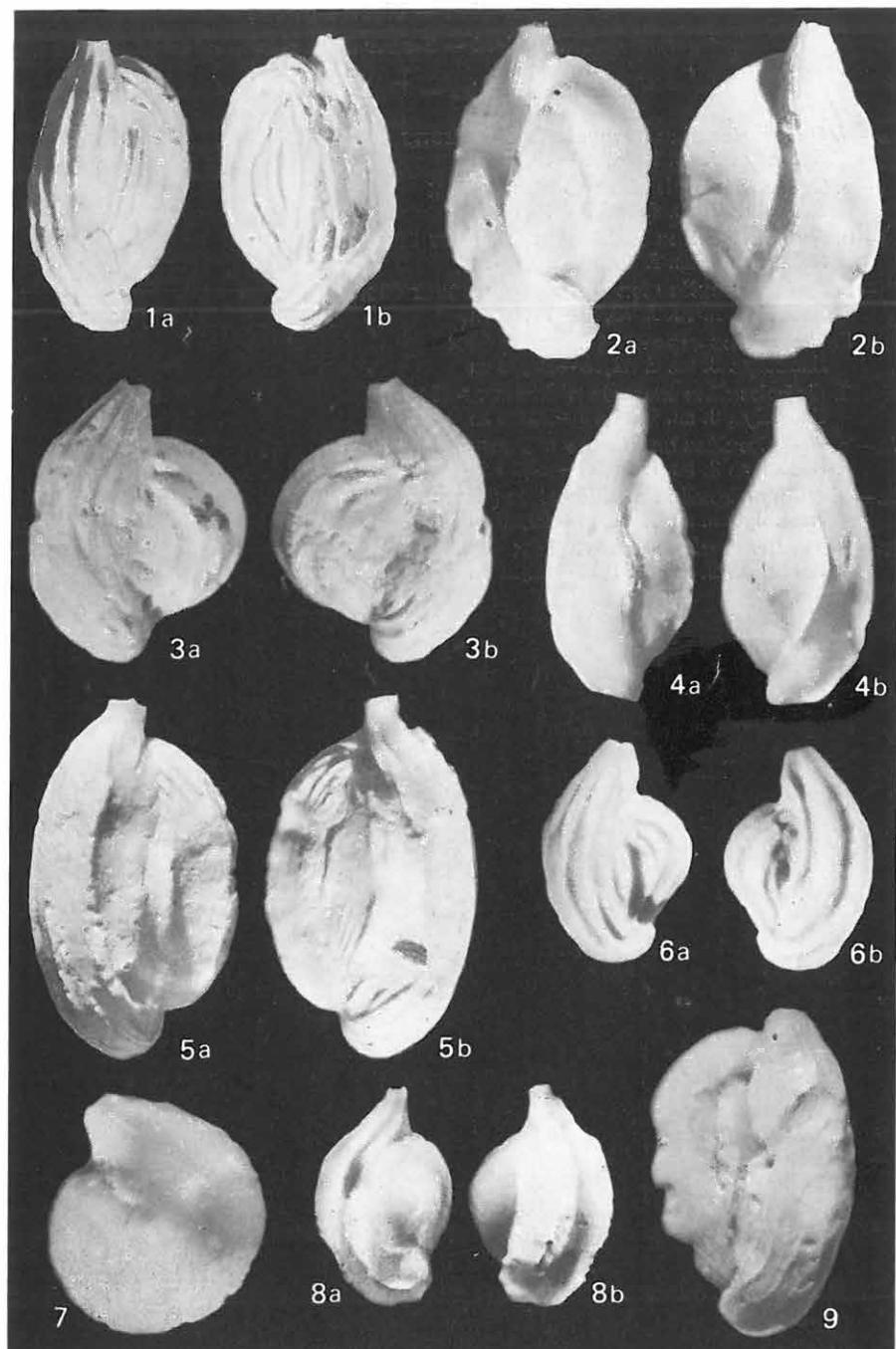


LXXXV. tábla — Plate LXXXV

Alsó-bádeni — Lower Badenian

Partközeli fácies — Near-shore facies

- 1a—b. *Quinqueloculina schreibersii* d'ORBIGNY 40×
Szokolya 2. sz. f. 91,00—93,00 m
- 2a—b. *Quinqueloculina lachenis* KARRER 50×
Szokolya 2. sz. f. 91,00—93,00 m
- 3a—b. *Quinqueloculina josephina* d'ORBIGNY 40×
Szokolya 2. sz. f. 91,00—93,00 m
- 4a—b. *Quinqueloculina longirostra* d'ORBIGNY 50×
Szokolya 2. sz. f. 91,00—93,00 m
- 5a—b. *Quinqueloculina gigas* NATLAND 40×
Szokolya 2. sz. f. 91,00—93,00 m
- 6a—b. *Quinqueloculina josephina* d'ORBIGNY 50×
Szokolya 2. sz. f. 91,00—93,00 m
7. *Adelosina laevigata* d'ORBIGNY 40×
Szokolya 2. sz. f. 81,50—82,30 m
- 8a—b. *Adelosina pulchella* d'ORBIGNY 40×
Szokolya 2. sz. f. 81,50—82,30 m
9. *Quinqueloculina vermicularis* KARRER 40×
Szokolya 2. sz. f. 91,00—93,00 m

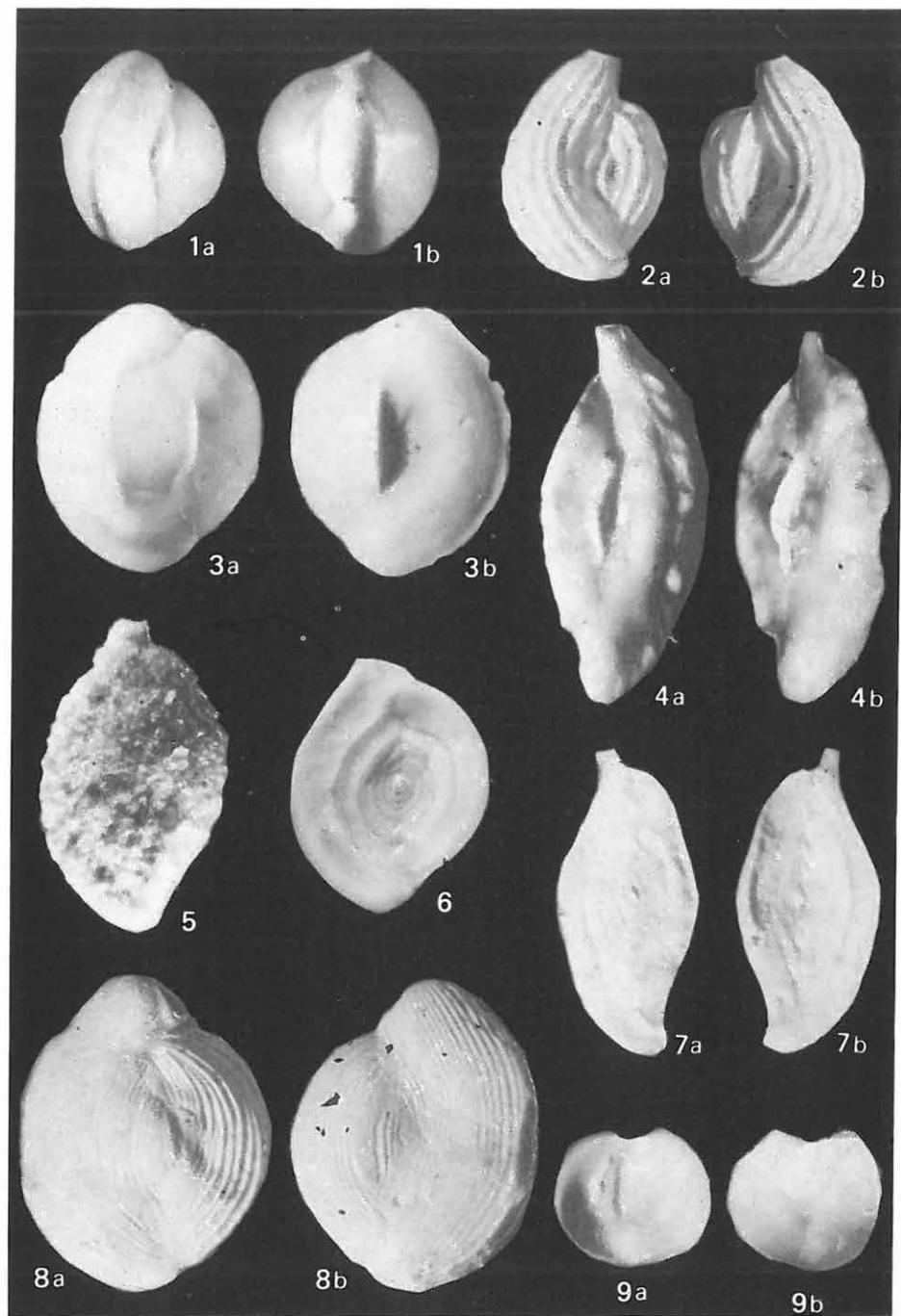


LXXXVI. tábla — Plate LXXXVI

Alsó-bádeni — Lower Badenian

Partközeli fácies — Near-shore facies

- 1a—b. *Quinqueloculina triangularis* d'ORBIGNY 40×
Szokolya 2. sz. f. 78,30—79,10 m
- 2a—b. *Triloculina pulchella* d'ORBIGNY 50×
Szokolya 2. sz. f. 78,30—79,10 m
- 3a—b. *Quinqueloculina buchiana* d'ORBIGNY 50×
Szokolya 2. sz. f. 78,30—79,10 m
- 4a—b. *Quinqueloculina longirostra* d'ORBIGNY 60×
Szokolya 2. sz. f. 78,30—79,10 m
5. *Sigmoilina asperula* (KARRER) 60×
Szokolya 3. sz. f. 21,00—23,00 m
6. *Spiroloculina excavata* d'ORBIGNY 60×
Szokolya 3. sz. f. 21,00—23,00 m
- 7a—b. *Spiraloculina antillarum* d'ORBIGNY 50×
Szokolya 3. sz. f. 21,00—23,00 m
- 8a—b. *Quinqueloculina pusillocostata* (VENGLINSKIJ) 40×
Szokolya 2. sz. f. 91,00—93,00 m
- 9a—b. *Hauerina plana* SEROVA 30×
Szokolya 2. sz. f. 91,00—93,00 m

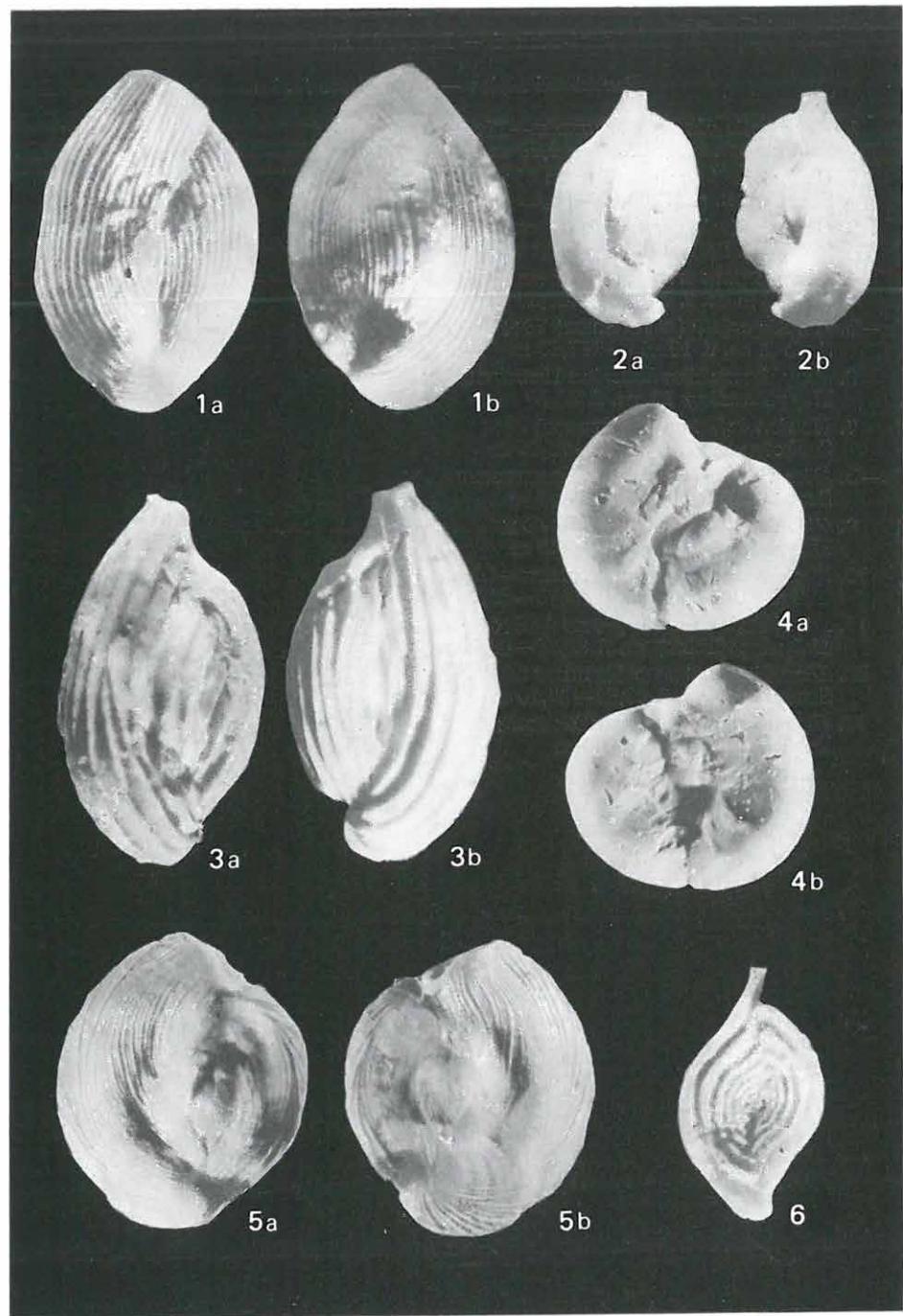


LXXXVII. tábla — Plate LXXXVII

Alsó-bádeni — Lower Badenian

Partközeli fácies — Near-shore facies

- 1a—b. *Quinqueloculina costata* d'ORBIGNY 50×
Szokolya 2. sz. f. 55,90—56,70 m
- 2a—b. *Quinqueloculina candeiana* d'ORBIGNY 40×
Szokolya 2. sz. f. 55,90—56,70 m
- 3a—b. *Quinqueloculina schreibersii* d'ORBIGNY 50×
Szokolya 2. sz. f. 55,90—56,70 m
- 4a—b. *Massilina secans* (d'ORBIGNY) 50×
Letkés 1. sz. f. 47,00—48,00 m
- 5a—b. *Spiriloculina striatula* TEN DAM—REINHOLD 20×
Szokolya 2. sz. f. 78,30—79,10 m
6. *Spiriloculina canaliculata* d'ORBIGNY 50×
Szokolya 2. sz. f. 39,10—39,90 m

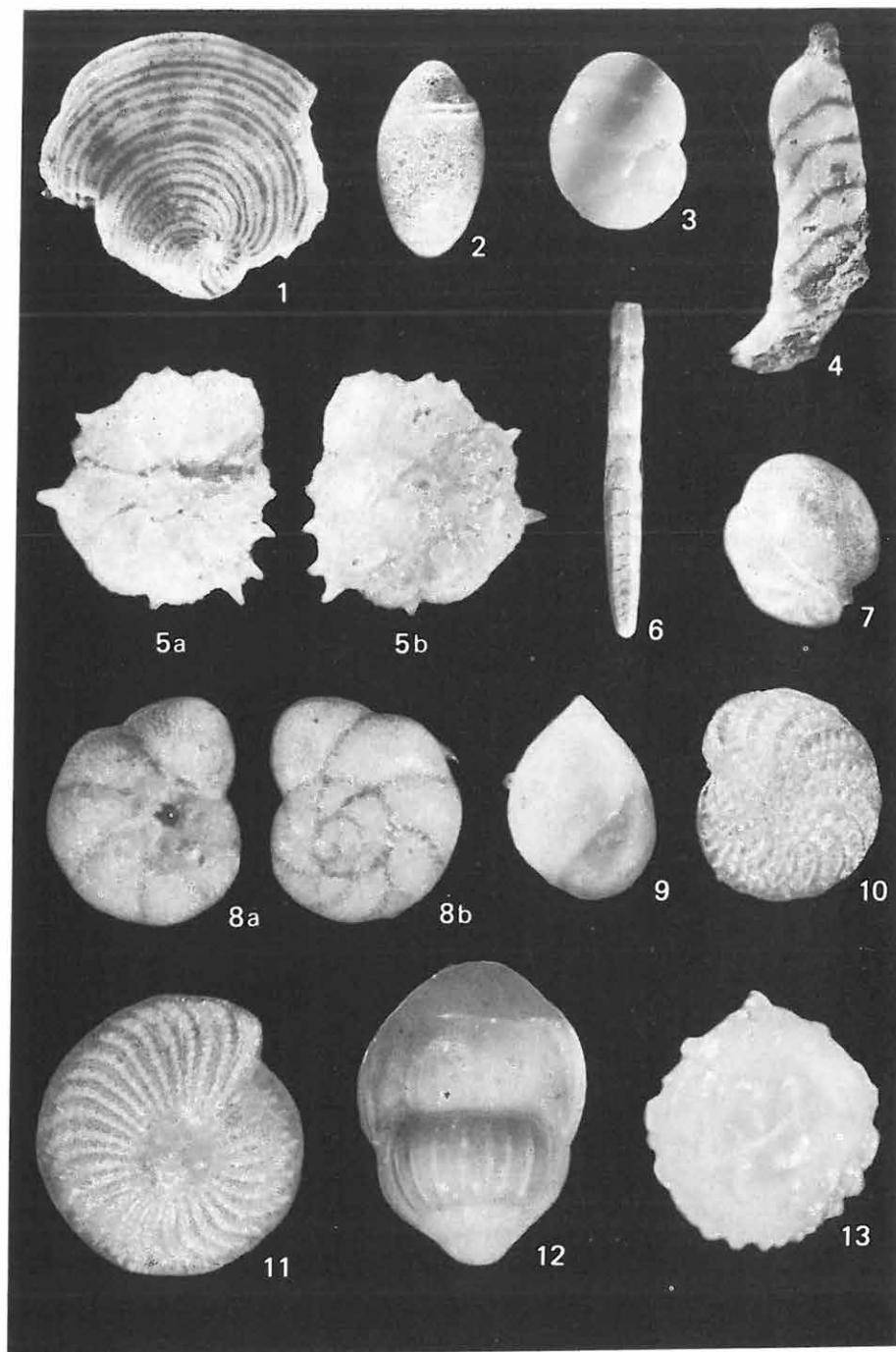


LXXXVIII. tábla — Plate LXXXVIII

Alsó-bádeni — Lower Badenian

Partközeli fácies — Near-shore facies

1. *Peneroplis planatus* (FICHTEL—MOLL) 50×
Szokolya 2. sz. f. 93,00—95,00 m
2. *Chilostomella ovoidea* REUSS 50×
Szokolya 2. sz. f. 93,00—95,00 m
3. *Ceratobulimina contraria* (REUSS) 60×
Letkés 2. sz. f. 148,00—149,00 m
4. *Marginulina crepidula* FICHTEL—MOLL 50×
Letkés 2. sz. f. 148,00—149,00 m
- 5a—b. *Rotalia calcar* (d'ORBIGNY) 70×
Szob 2. sz. f. 193,00—195,00 m
6. *Amphimorphina hauerina* NEUGEBOREN 20×
Nagybörzsöny 12. sz. f. 30,00 m
7. *Nonion inflatum* (SCHUBERT) 50×
Szokolya 2. sz. f. 72,70—73,50 m
- 8a—b. *Discorbis kerékhegyensis* FRANZENAU 50×
Szob 2. sz. f. 138,60—139,60 m
9. *Globulina gibba* d'ORBIGNY 40×
Nagybörzsöny 8. sz. f. 96,00 m
10. *Elphidium macellum* (FICHTEL—MOLL) 20×
Drégelypalánk 2. sz. f. 42,00—44,00 m
11. *Elphidium crispum* (LINNE) 20×
Drégelypalánk 2. sz. f. 42,00—44,00 m
12. *Lingulina costata* d'ORBIGNY 20×
Szokolya 2. sz. f. 66,30—67,10 m
13. *Globulina tuberculata* d'ORBIGNY 60×
Perőcsény 3. sz. f. 60,00 m

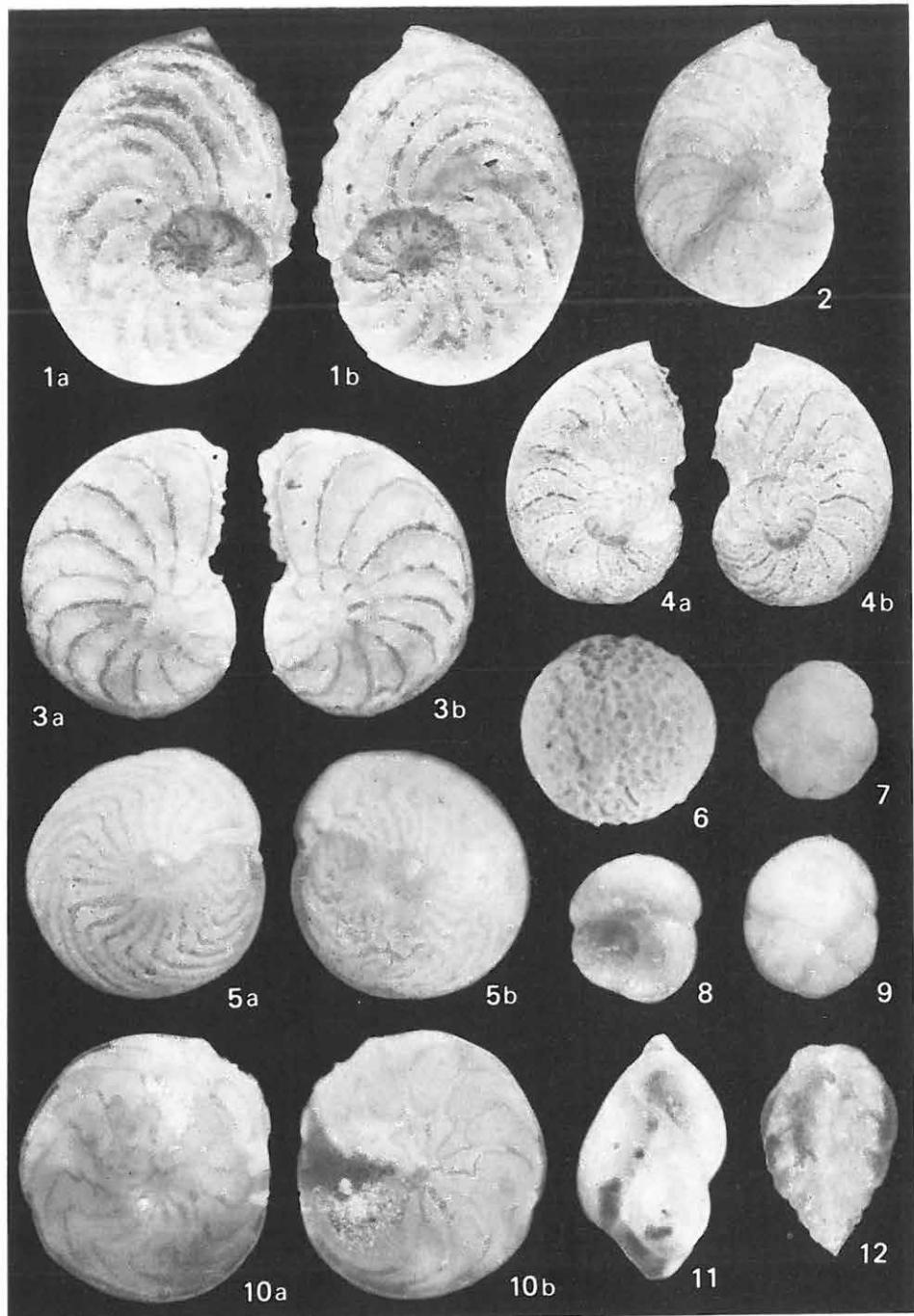


LXXXIX. tábla — Plate LXXXIX

Alsó-bádeni — Lower Badenian

Partközeli fácies — Near-shore facies

- 1a—b. *Heterostegina costata carinata* PAPP — KÜPPER 30×
Szokolya 2. sz. f. 91,00—93,00 m
2. *Heterostegina praecostata* PAPP — KÜPPER 30×
Szokolya 2. sz. f. 91,00—93,00 m
- 3a—b. *Heterostegina simplex* d'ORBIGNY 30×
Szokolya 2. sz. f. 91,00—93,00 m
- 4a—b. *Heterostegina costata* d'ORBIGNY 30×
Szokolya 2. sz. f. 91,00—93,00 m
- 5a—b. *Amphistegina hauerina* d'ORBIGNY 30×
Szokolya 2. sz. f. 101,00—102,00 m
6. *Gypsina globula* (REUSS) 50×
Szokolya 2. sz. f. 95,00—96,60 m
7. *Cassidulina laevigata* d'ORBIGNY 70×
Szokolya 2. sz. f. 52,70—53,50 m
8. *Sphaeroidina bulloides* d'ORBIGNY 50×
Nagybörzsöny 8. sz. f. 88,90 m
9. *Cassidulina crassa* d'ORBIGNY 70×
Szokolya 2. sz. f. 52,70—53,50 m
- 10a—b. *Amphistegina lessonii* d'ORBIGNY 30×
Szokolya 2. sz. f. 101,00—102,00 m
11. *Guttulina austriaca* d'ORBIGNY 60×
Szokolya 2. sz. f. 7,60—8,20 m
12. *Reussella spinulosa* (REUSS) 80×
Szokolya 2. sz. f. 33,50—34,70 m

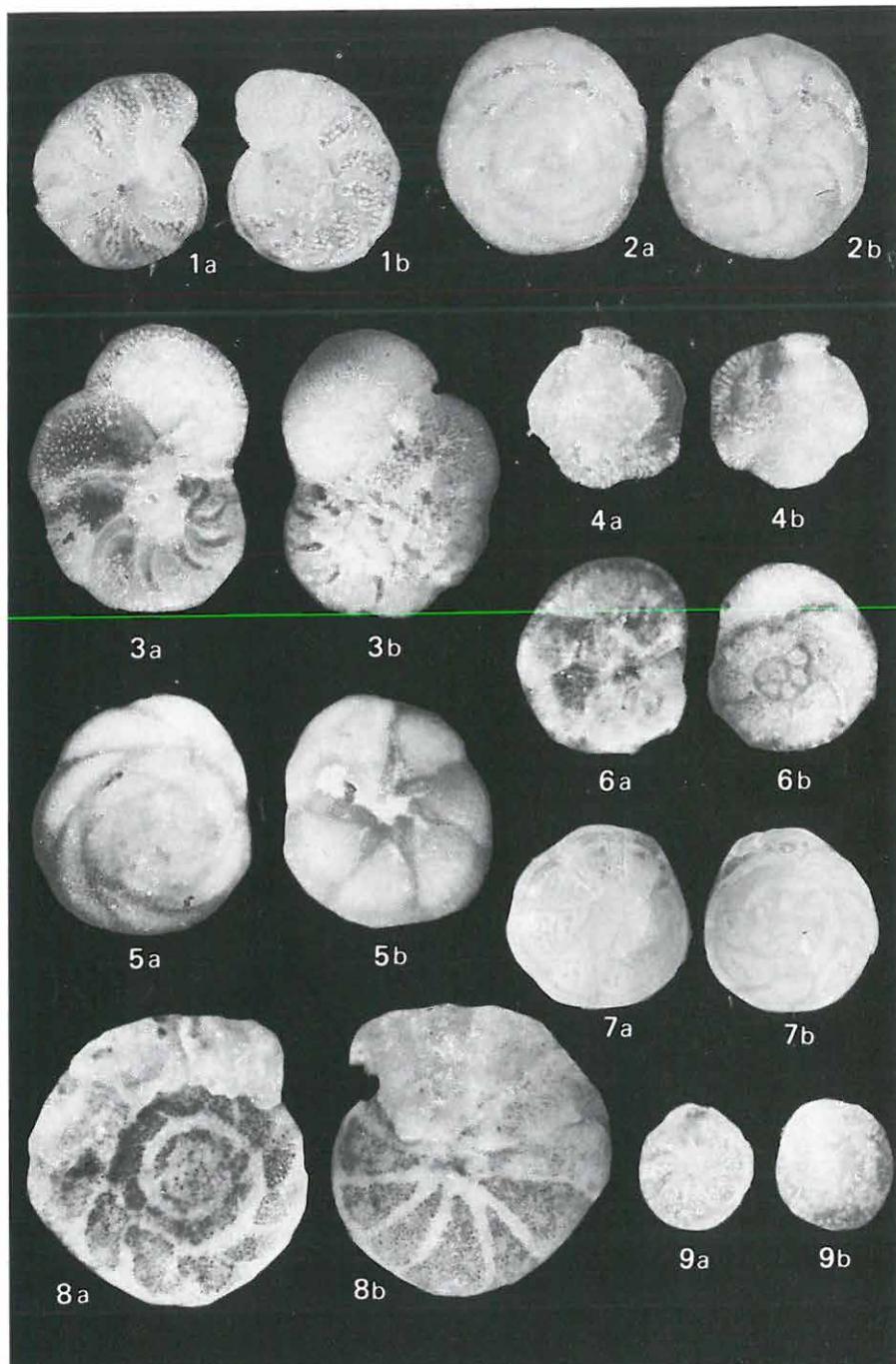


XC. tábla — Plate XC

Alsó-bádeni — Lower Badenian

Partközeli fácies — Near-shore facies

- 1a—b. *Cibicidoides ungerianus* (D'ORBIGNY) 30×
Letkés 3. sz. f. 5,80—7,90 m
- 2a—b. *Asterigerina planorbis* D'ORBIGNY 50×
Szob, Damásdi hídtól É-ra 7/a minta
- 3a—b. *Hanzawaia boueana* (D'ORBIGNY) 50×
Letkés 3. sz. f. 5,80—7,90 m
- 4a—b. *Siphonina reticulata* (CŽJŽEK) 30×
Letkés 3. sz. f. 41,0—45,0 m
- 5a—b. *Neoeponides schreibersii* (D'ORBIGNY) 30×
Szob, Damásdi hídtól É-ra 7/a minta
- 6a—b. *Discorbis obtusata* (D'ORBIGNY) 40×
Szob, Damásdi hídtól É-ra 7/b minta
- 7a—b. *Hoeglundina elegans* (D'ORBIGNY) 30×
Letkés 3. sz. f. 18,0—20,0 m
- 8a—b. *Eponides praecinctus* (KARRER) 60×
Perőcsény 3. sz. f. 31,5—34,0 m
- 9a—b. *Asterigerina staeschei* TEN DAM—REINHOLDI 20×
Szob, Damásdi patak hídja

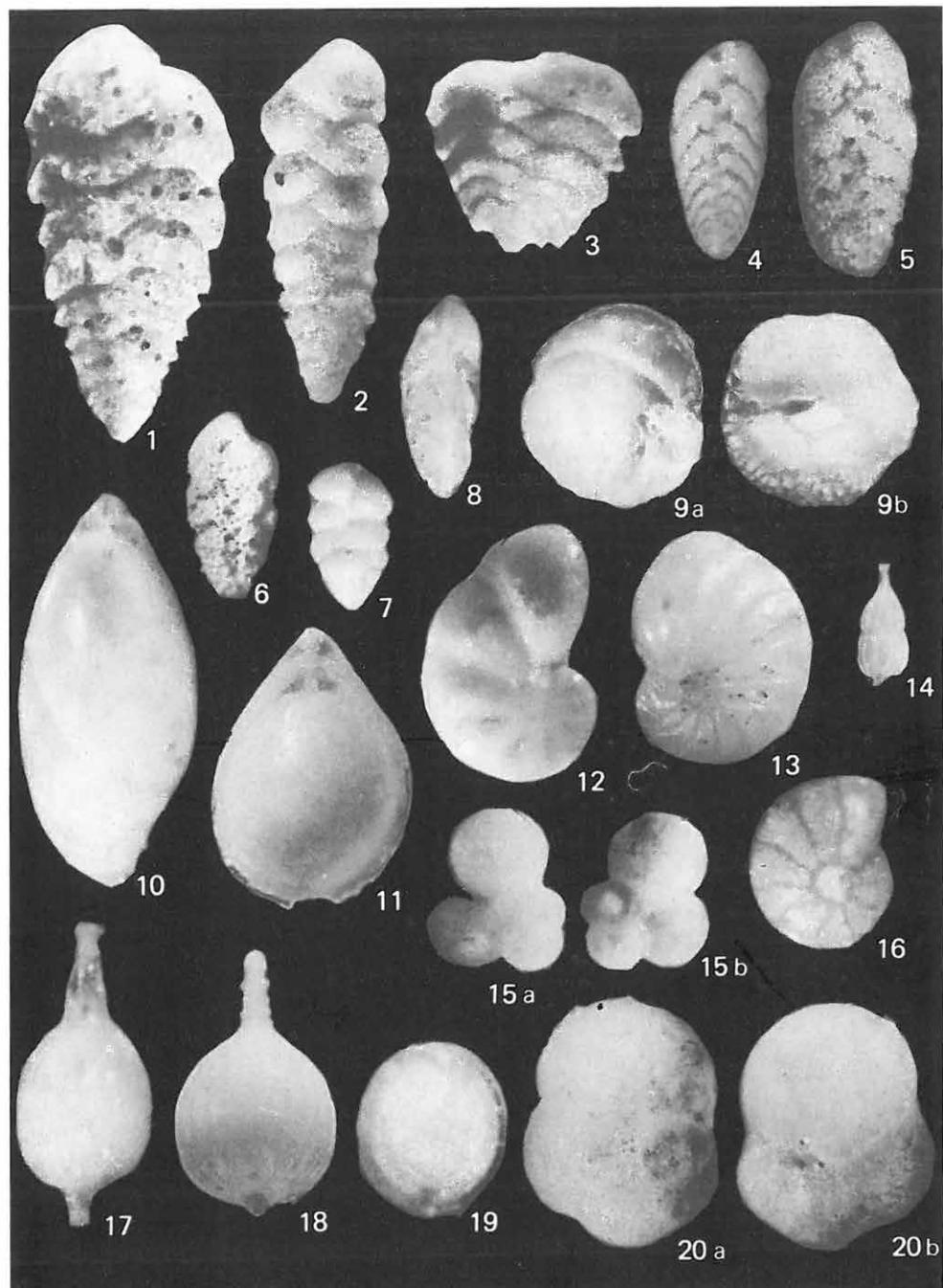


XCI. tábla — Plate XCI

Alsó-bádeni — Lower Badenian

Partközeli fáciés — Near-shore facies

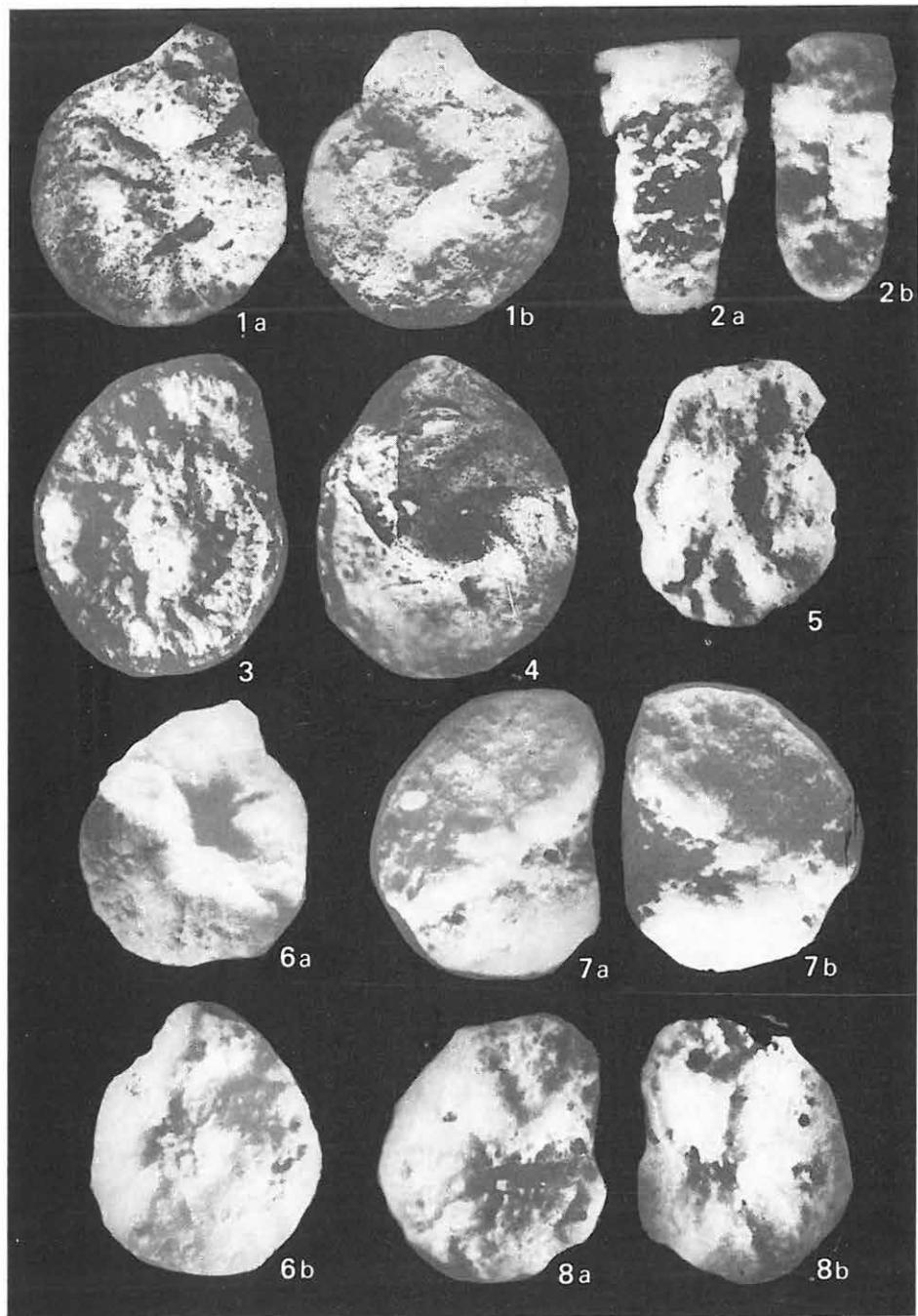
1. *Textularia sculpturata* CUSHMAN — TEN DAM 80×
Szokolya 2. sz. f. 37,0—37,9 m
2. *Textularia lanceolata* (KARRER) 80×
Szokolya 2. sz. f. 37,0—37,9 m
3. *Textularia conica* d'ORBIGNY 80×
Szokolya 2. sz. f. 37,0—37,9 m
4. *Bolivina scalprata* var. *miocenica* MACFADYEN 60×
Perőcsény 3. sz. f. 98,00—100,0 m
5. *Bolivina crenulata crenulata* CUSHMAN 70×
Perőcsény 3. sz. f. 98,0—100,0 m
6. *Bolivina pseudoduplicata* HERON — ALLEN et EARLAND 50×
Letkés 3. sz. f. 18,0—20,0 m
7. *Karriella bradyi* (CUSHMAN) 50×
Szokolya 2. sz. f. 21,4—21,8 m
8. *Trifarina bradyi* CUSHMAN 50×
Szokolya 2. sz. f. 21,4—21,8 m
- 9a—b. *Lamarckina erinacea* (KARRER) 60×
Szokolya 2. sz. f. 96,6—97,8 m
10. *Lenticulina hoernesii* (REUSS) 100×
Letkés 1. sz. f. 36,5—37,0 m
11. *Oolina orbigniana* (SEGUENZA) 100×
Perőcsény 3. sz. f. 60,0 m
12. *Nonion pizarrense* BERRY 50×
Vámosmikola 2. sz. f. 95,0 m
13. *Florilus boueanus* (d'ORBIGNY) 50× *= Nonion communis (Pander)*
Vámosmikola 2. sz. f. 95,0 m
14. *Lagenonodosaria proxima* (SILVESTRI) 20×
Szokolya 2. sz. f. 26,2—27,2 m
- 15a—b. *Globigerina foliata* BOLLI 40×
Letkés 1. sz. f. 49,0—50,0 m
16. *Melonis soldanii* (d'ORBIGNY) 40×
Letkés 12. sz. f. 67,0 m
17. *Lagena laevis* MONTAGU 80×
Nagymaros 3. sz. f. 32,2—36,2 m
18. *Lagena sulcata* (WALKER — JACOB) 80×
Nagymaros 3. sz. f. 32,2—36,2 m
19. *Oolina marginata* (WALKER — BOYS) 80×
Szokolya 2. sz. f. 28,4—28,8 m
- 20a—b. *Baggina gibba* d'ORBIGNY 80×
Letkés 1. sz. f. 13,2—14,5 m



XII. tábla — Plate XII
Alsó-bádeni — Lower Badenian

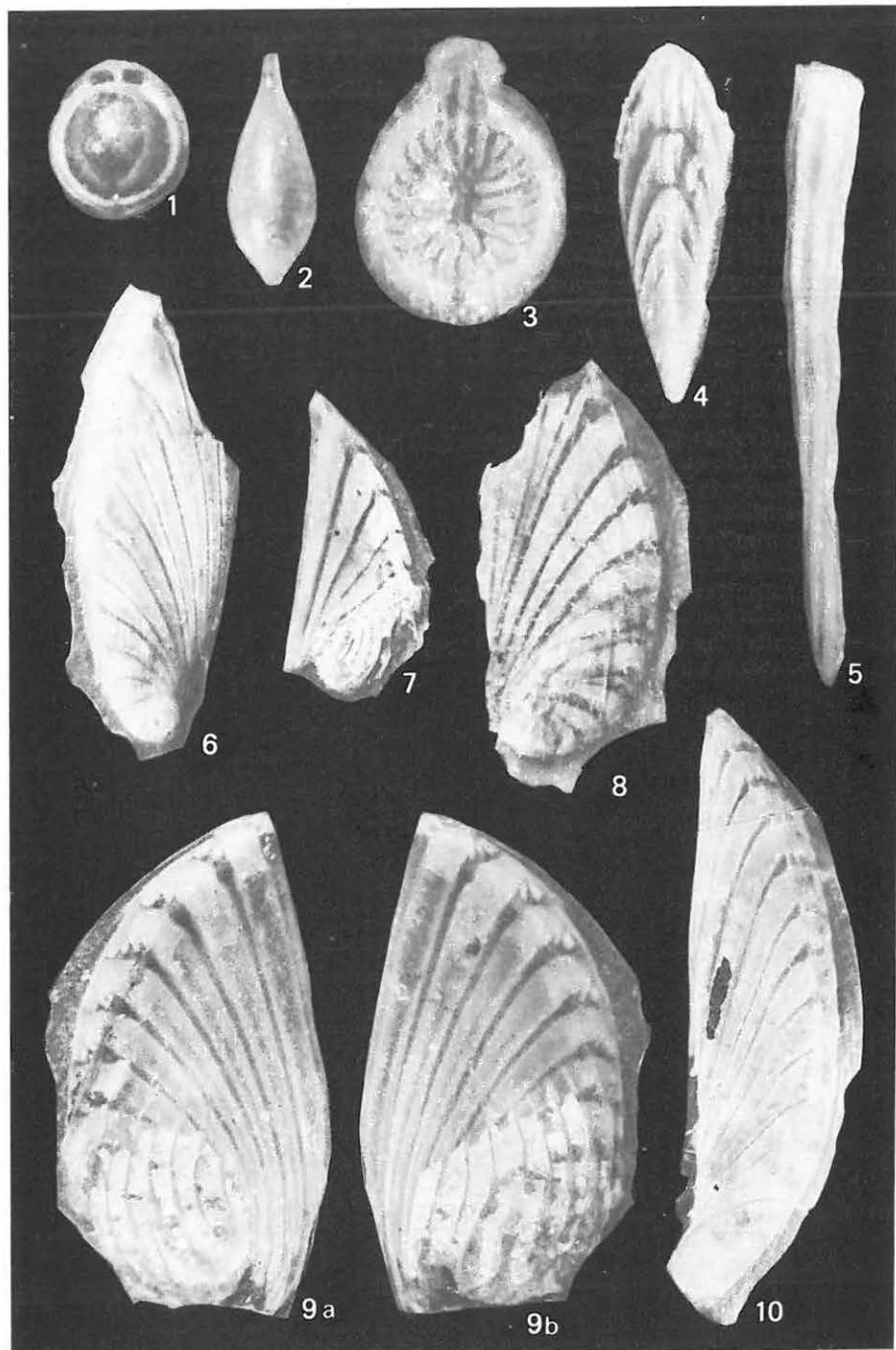
Vulkanit közé települt üledék faunája — Fauna of the sediments settled among volcanites

- 1a—b. *Haplophragmoides anomalinoides* RHUMBLER 48×
Kisinóc, Négyhányás
- 2a—b. *Bathysiphon edurus* VOLOSHINOVA 48×
Kisinóc, Négyhányás
- 3. *Cyclammina cancellata* BRADY 48×
Kisinóc, Négyhányás
- 4. *Lenticulina cultrata* (MONTFORT) 48×
Kisinóc, Négyhányás
- 5. *Haplophragmoides compressa* LE ROY 48×
Kisinóc, Négyhányás
- 6a—b. *Cyclammina evolinatus* SMITH 48×
Kisinóc, Négyhányás
- 7a—b. *Cyclammina tani* ISHIZAKI 48×
Kisinóc, Négyhányás
- 8a—b. *Cyclammina vulchoviensis* VENGLINSKIJ 48×
Kisinóc, Négyhányás



XCHI. tábla — Plate XCIII
Alsó-bádeni — Lower Badenian
Medence fácies — Basin facies

1. *Oolina marginata* (WALKER—BOYS) 35×
Letkés 1. sz. f. 32,00—34,00 m
2. *Lagena laevis* (MONTAGU) 35×
Letkés 1. sz. f. 32,00—34,00 m
3. *Oolina radiatomarginata* (PARKER—JONES) 35×
Letkés 1. sz. f. 32,00—34,00 m
4. *Frondicularia interrupta* KARRER 35×
Letkés 1. sz. f. 49,00—50,00 m
5. *Lagenonodosaria torsicostata* TEN DAM 35×
Letkés 1. sz. f. 49,00—50,00 m
- 6—10. *Planularia auris* (DEFRANCE) 23×
Letkés 1. sz. f. 46,00—47,00 m

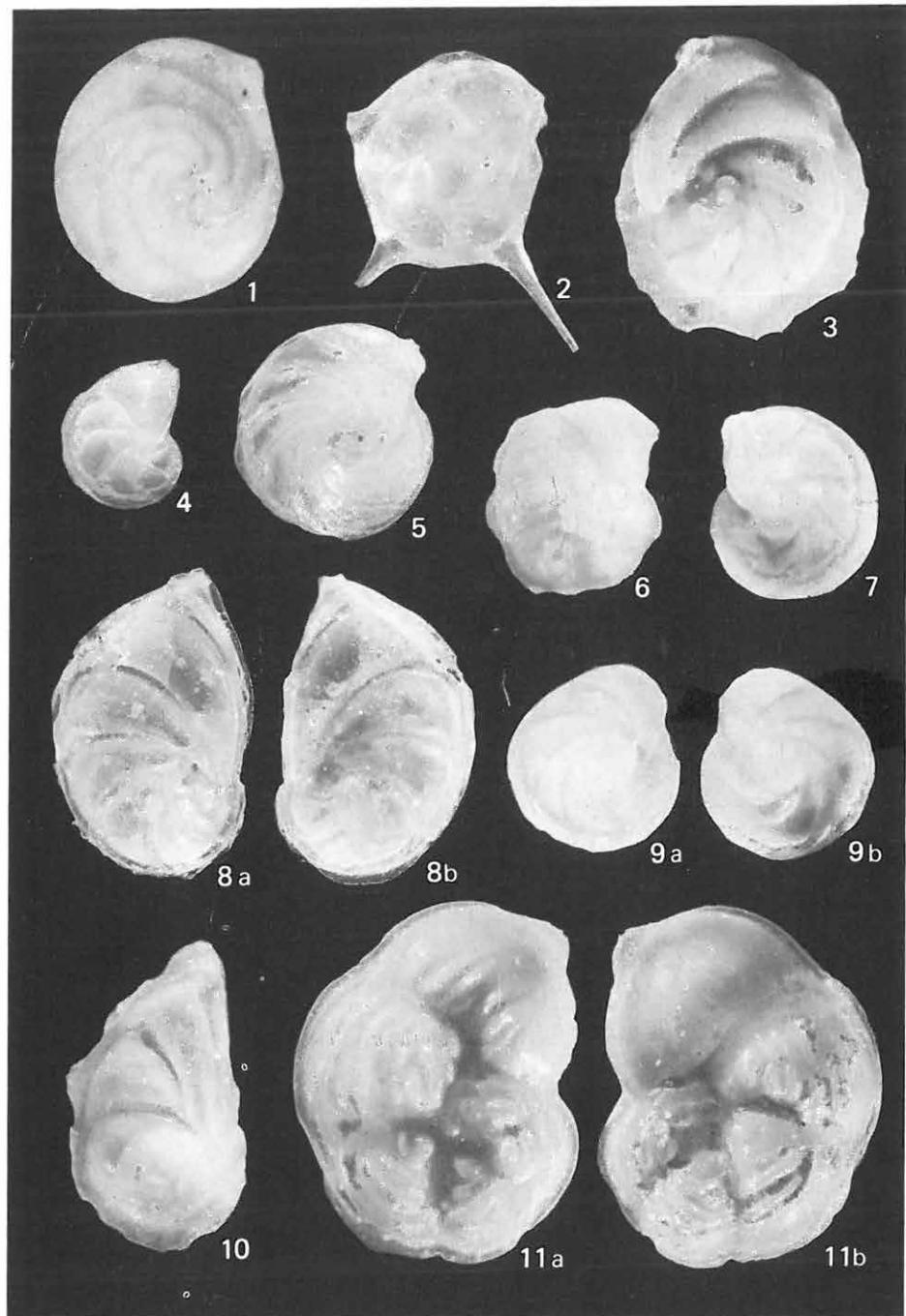


XCIV. tábla — Plate XCIV

Alsó-bádeni — Lower Badenian

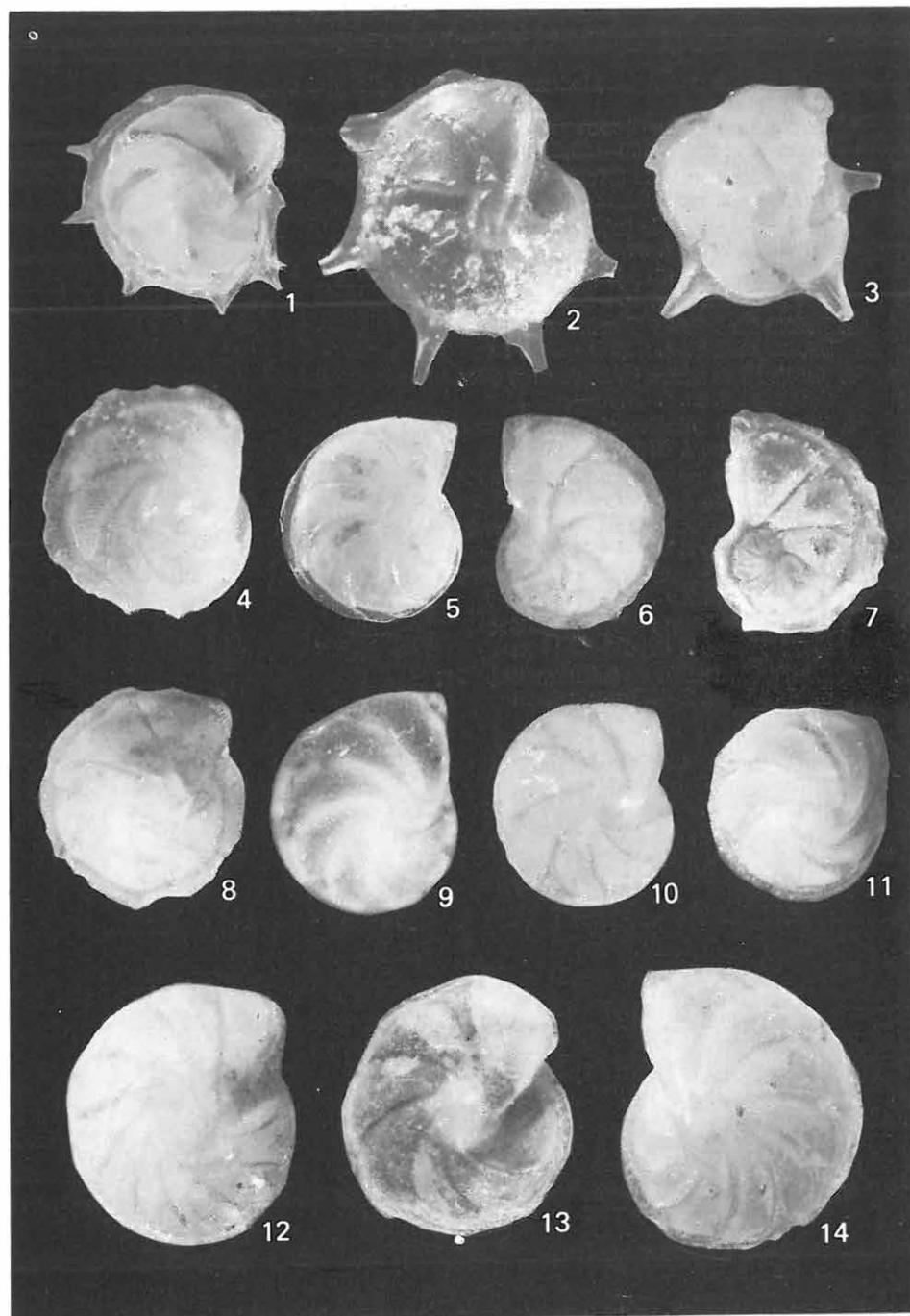
Medence fácies — Basin facies

1. *Lenticulina vortex* (FICHTEL—MOLL) 30×
Letkés 1. sz. f. 47,00—48,00 m
2. *Lenticulina calcar* (LINNE) 30×
Letkés 1. sz. f. 47,00—48,00 m
3. *Lenticulina cassis* (LAMARCK) 30×
Letkés 1. sz. f. 47,00—48,00 m
4. *Lenticulina similis* (D'ORBIGNY) 20×
Letkés 1. sz. f. 47,00—48,00 m
5. *Lenticulina clericii* (FORNASINI) 30×
Letkés 1. sz. f. 47,00—48,00 m
6. *Planularia helena* (KARRER) 30×
Letkés 1. sz. f. 47,00—48,00 m
7. *Lenticulina* cf. *culturata* (MONTFORT) 30×
Letkés 1. sz. f. 47,00—48,00 m
- 8a—b. *Planularia cassis* (FICHTEL—MOLL) 30×
Letkés 1. sz. f. 47,00—48,00 m
- 9a—b. *Lenticulina orbicularis* (CUSHMAN) 30×
Letkés 1. sz. f. 47,00—48,00 m
10. *Lenticulina paulae* (KARRER) 40×
Letkés 1. sz. f. 47,00—48,00 m
- 11a—b. *Lenticulina ariminensis* (D'ORBIGNY) 40×
Letkés 1. sz. f. 47,00—48,00 m



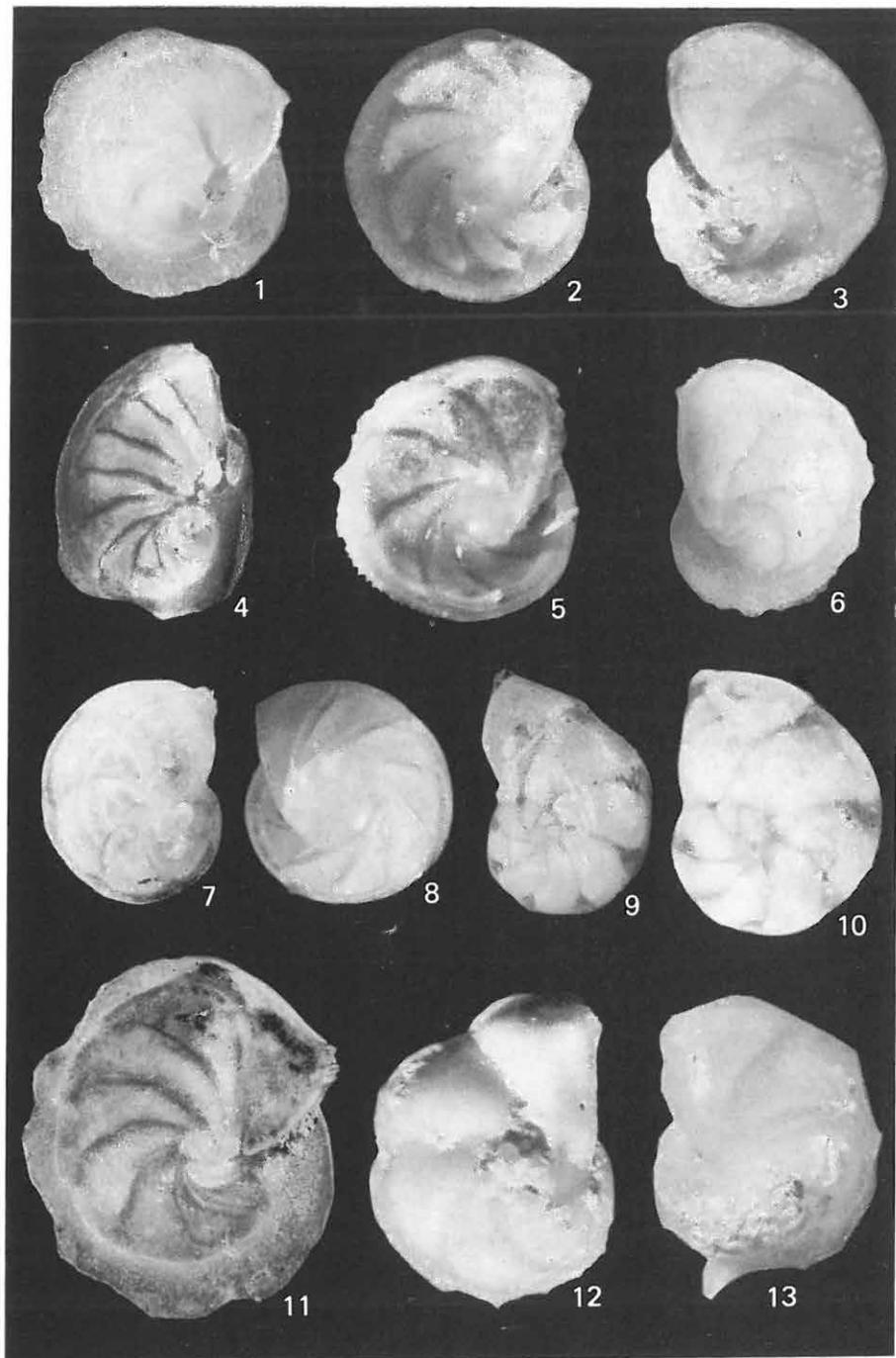
XCV. tábla — Plate XCV
Alsó-bádeni — Lower Badenian
Medence fácies — Basin facies

1. *Lenticulina calcar* (LINNE) 20×
Letkés 1. sz. f. 48,00—49,00 m
2. *Lenticulina echinata* (D'ORBIGNY) 30×
Letkés 1. sz. f. 48,00—49,00 m
3. *Lenticulina arcuata* (KARRER) 30×
Letkés 1. sz. f. 48,00—49,00 m
4. *Lenticulina dubia* (SEGUENZA) 30×
Letkés 1. sz. f. 48,00—49,00 m
5. *Lenticulina aquitanica* (CUVILLIER—SZAKALL) 30×
Letkés 1. sz. f. 48,00—49,00 m
6. *Lenticulina gibba* (D'ORBIGNY) 20×
Letkés 1. sz. f. 48,00—49,00 m
7. *Planularia moravica* (KARRER) 20×
Letkés 1. sz. f. 48,00—49,00 m
8. *Lenticulina austriaca* (D'ORBIGNY) 30×
Letkés 1. sz. f. 48,00—49,00 m
9. *Lenticulina princeps* (REUSS) 30×
Letkés 1. sz. f. 48,00—49,00 m
10. *Lenticulina angustimargo* REUSS 30×
Letkés 1. sz. f. 48,00—49,00 m
11. *Lenticulina limbata* BORNEMANN 30×
Letkés 1. sz. f. 48,00—49,00 m
12. *Lenticulina americana* CUSHMAN 30×
Letkés 1. sz. f. 48,00—49,00 m
13. *Lenticulina* sp. 30×
Letkés 1. sz. f. 48,00—49,00 m
14. *Lenticulina limbosa* (REUSS) 30×
Letkés 1. sz. f. 48,00—49,00 m



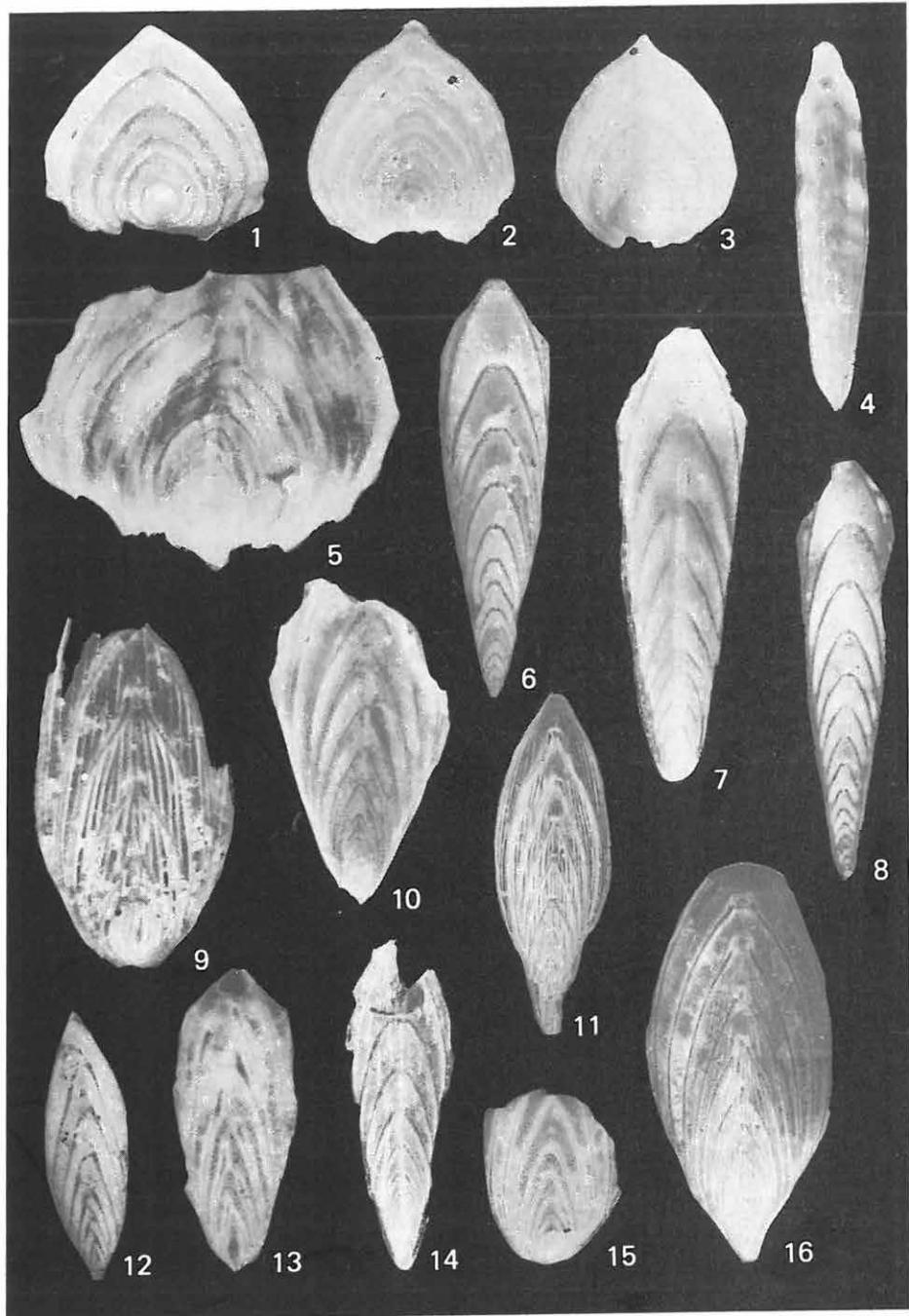
XCVI. tábla — Plate XCVI
Alsó-bádeni — Lower Badenian
Medence fáciés — Basin facies

1. *Lenticulina vitrea* (SEGUENZA) 40×
 Letkés 1. sz. f. 47,00—48,00 m
2. *Lenticulina cultrata* (MONTFORT) 30×
 Szokolya 2. sz. f. 37,00—37,90 m
3. *Lenticulina similis* (d'ORBIGNY) 30×
 Szokolya 2. sz. f. 37,00—37,90 m
4. *Planularia gründensis* (KARRER) 30×
 Letkés 1. sz. f. 47,00—48,00 m
5. *Lenticulina dubia* (SEGUENZA) 30×
 Szokolya 2. sz. f. 37,00—37,90 m
6. *Lenticulina crassa* (d'ORBIGNY) 30×
 Szokolya 2. sz. f. 37,00—37,90 m
7. *Lenticulina ariminensis* (d'ORBIGNY) 30×
 Letkés 1. sz. f. 47,00—48,00 m
8. *Lenticulina macrodisca* (REUSS) 30×
 Letkés 1. sz. f. 47,00—48,00 m
- 9—10. *Lenticulina alabamensis* (CUSHMAN) 30×
 Letkés 1. sz. f. 47,00—48,00 m
11. *Lenticulina grandis* (TEN DAM) 30×
 Letkés 1. sz. f. 47,00—48,00 m
12. *Planularia helena* (KARRER) 40×
 Letkés 1. sz. f. 47,00—48,00 m
13. *Lenticulina echinata* (d'ORBIGNY) 40×
 Letkés 1. sz. f. 47,00—48,00 m



XCVII. tábla — Plate XCVII
Alsó-bádeni — Lower Badenian
Medence fácies — Basin facies

- 1—3. *Frondicularia annularis* D'ORBIGNY 10×
 Szokolya 2. sz. f. 57,50—58,30 m
4. *Plectofrondicularia diversicostata* (NEUGEBOREN) 20×
 Szokolya 2. sz. f. 57,50—58,30 m
5. *Palmula appendicifera* NYÍRŐ 10×
 Szokolya 2. sz. f. 57,50—58,30 m
- 6., 8. *Frondicularia laevigata* KARRER 10×
 Szokolya 2. sz. f. 28,40—28,80 m
7. *Frondicularia raricosta* KARRER 10×
 Szokolya 2. sz. f. 28,40—28,80 m
9. *Frondicularia reussi* KARRER 10×
 Szokolya 2. sz. f. 33,50—34,70 m
10. *Frondicularia jarvisi* CUSHMAN—TODD 10×
 Nagybörzsöny 8. sz. f. 88,90 m
11. *Frondicularia badenensis* KARRER 10×
 Nagybörzsöny 8. sz. f. 150,00 m
12. *Palmula longiforma* BERMUDEZ 40×
 Nagybörzsöny 12. sz. f. 82,00 m
13. *Sigmomorpha frondiculariformis* GALLOWAY—WISSLER 10×
 Nagybörzsöny 8. sz. f. 88,90 m
14. *Frondicularia interrupta* KARRER 10×
 Nagybörzsöny 8. sz. f. 150,00 m
15. *Frondicularia bulbosa* CORYELL—RIVERO 10×
 Nagybörzsöny 12. sz. f. 82,00 m
16. *Frondicularia sculpta* KARRER 10×
 Nagybörzsöny 12. sz. f. 82,00 m

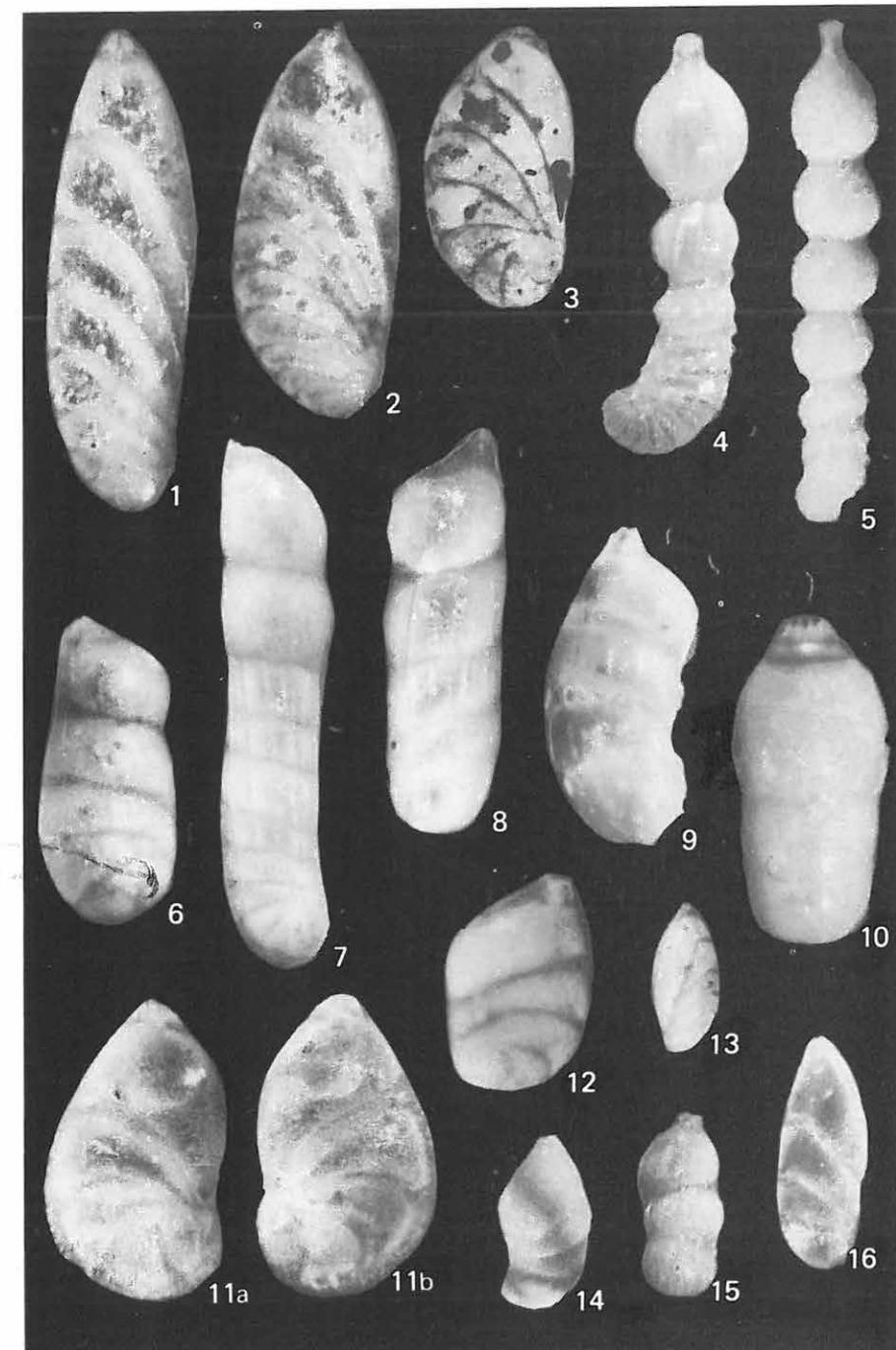


XCVIII. tábla — Plate XCIX

Alsó-bádeni — Lower Badenian

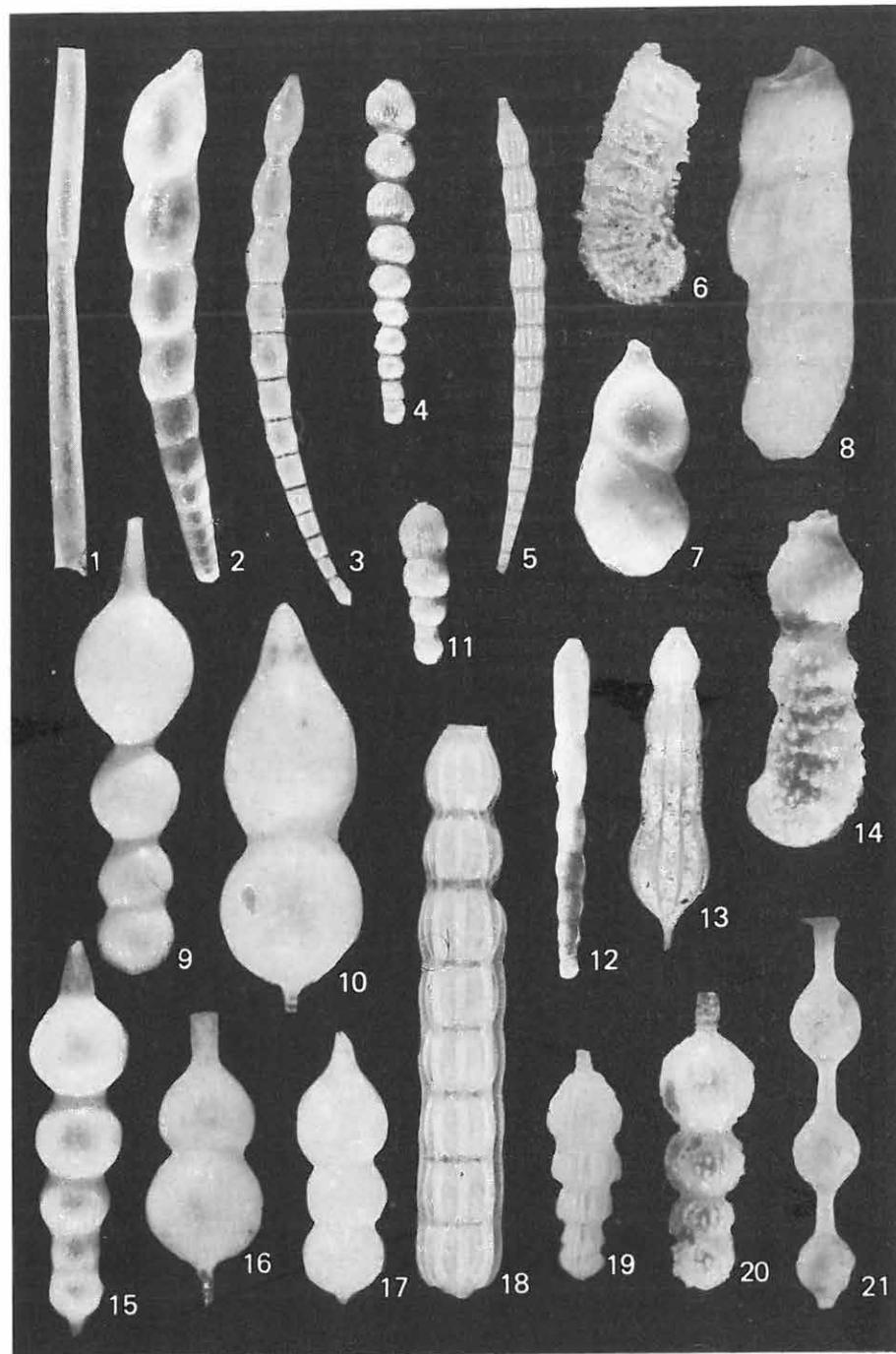
Medence fácies — Basin facies

- 1—3. *Planularia crepidula* FICHTEL — MOLL 50×
Letkés 12. sz. f. 82,00 m
4. *Marginulina semituberculata* var. *deducta* (FRANZENAU) 50×
Szokolya 2. sz. f. 33,50—34,70 m
5. *Marginulina hirsuta* d'ORBIGNY 60×
Szokolya 2. sz. f. 33,50—34,70 m
6. *Marginulina ornata* HANTKEN 40×
Szokolya 2. sz. f. 26,20—27,20 m
- 7—8. *Marginulina vaginella* REUSS 60×
Szokolya 2. sz. f. 26,20—27,20 m
9. *Marginulina pustulosa* NEUGEBOREN 60×
Letkés 1. sz. f. 49,00—50,00 m
10. *Nodosaria radicula glanduliniformis* DERVIEUX 40×
Szokolya 2. sz. f. 109,00—111,00 m
- 11a—b. *Astacolus planatus* GALLOWAY — WISSLER 50×
Perőcsény 3. sz. f. 60,00 m
12. *Marginulina ornata* HANTKEN 50×
Szokolya 2. sz. f. 26,20—27,20 m
13. *Saracenaria latifrons* (BRADY) 40×
Perőcsény 3. sz. f. 60,00 m
14. *Marginulina pedum* d'ORBIGNY 40×
Perőcsény 3. sz. f. 60,00 m
15. *Marginulina striatula* CUSHMAN 40×
Perőcsény 3. sz. f. 60,00 m
16. *Planularia simplex* d'ORBIGNY 40×
Perőcsény 3. sz. f. 60,00 m



XCIX. tábla — Plate XCIX
 Alsó-bádeni — Lower Badenian
 Medence fáacies — Basin facies

1. *Nodosaria longiscata* d'ORBIGNY 50×
 Vámosmikolai térképlap 83. sz. feltárás
2. *Dentalina punctata* d'ORBIGNY 50×
 Vámosmikolai térképlap 83. sz. feltárás
3. *Stilostomella pauperata* (d'ORBIGNY) 40×
 Perőcsény 3. sz. f. 60,0 m
4. *Nodosaria perversa* SCHWAGER 40×
 Vámosmikolai térképlap 83. sz. feltárás
5. *Dentalina vertebralis* (BATSCH) 40×
 Perőcsény 3. sz. f. 85,8 m
6. *Marginulina echinata* NEUGEBOREN 40×
 Nagybörzsöny 12. sz. f. 82,0 m
7. *Dimorphina variabilis* (NEUGEBOREN) 40×
 Szokolya 2. sz. f. 76,7—77,5 m
8. *Marginulina costata* BATSCH 50×
 Szokolya 2. sz. f. 26,2—27,5 m
9. *Nodosaria reussiana* NEUGEBOREN 50×
 Szokolya 2. sz. f. 76,7—77,5 m
10. *Nodosaria simplex* SILVESTRI 70×
 Szokolya 2. sz. f. 33,5—34,7 m
11. *Nodosaria badenensis* d'ORBIGNY 30×
 Szokolya 2. sz. f. 78,3—79,1 m
12. *Nodosaria ewaldi* (REUSS) 40×
 Szokolya 2. sz. f. 78,3—79,1 m
13. *Nodosaria bacilloides* HANTKEN 50×
 Szokolya 2. sz. f. 77,5—78,3 m
14. *Marginulina hirsuta* d'ORBIGNY 60×
 Szokolya 2. sz. f. 33,5—34,7 m
15. *Lagenonodosaria scalaris* var. *sagamiensis* (ASANO) 50×
 Szokolya 2. sz. f. 12,2—13,2 m
16. *Lagenonodosaria proxima* (SILVESTRI) 50×
 Szokolya 2. sz. f. 12,2—13,2 m
17. *Nodosaria soluta* REUSS 50×
 Szokolya 2. sz. f. 8,6—9,6 m
18. *Nodosaria raphanistrum* LINNE 50×
 Szokolya 2. sz. f. 8,6—9,6 m
19. *Lagenonodosaria scalaris* (BATSCH) 40×
 Nagybörzsöny 12. sz. f. 82,0 m
20. *Nodosaria hispida* d'ORBIGNY 60×
 Nagybörzsöny 12. sz. f. 82,0 m
21. *Nodosaria pyrula* d'ORBIGNY 60×
 Perőcsény 3. sz. f. 60,0 m

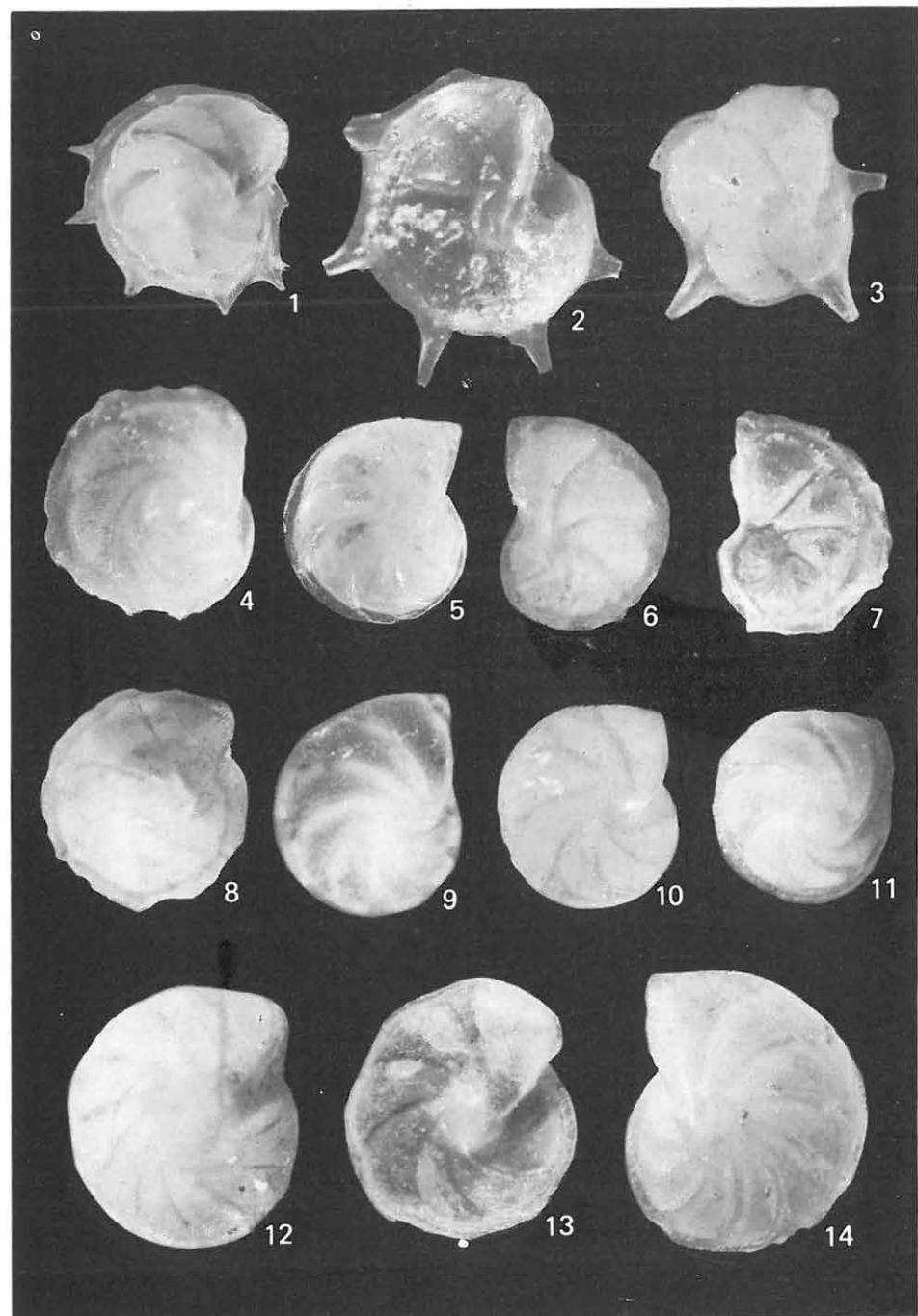


C. tábla — Plate C

Alsó-bádeni — Lower Badenian

Medence fácies — Basin facies

1. *Orbulina universa* d'ORBIGNY 70×
Letkés 1. sz. f. 47,00—48,00 m
2. *Orbulina suturalis* BRÖNNIMANN 50×
Letkés 1. sz. f. 47,00—48,00 m
- 3a—b. *Globigerina calida* PARKER 70×
Letkés 1. sz. f. 47,00—48,00 m
4. *Orbulina bilobata* (d'ORBIGNY) 70×
Letkés 1. sz. f. 47,00—48,00 m
- 5—6. *Globigerinoides transitoria* BLOW 70×
Letkés 1. sz. f. 47,00—48,00 m
7. *Globigerinoides triloba* (REUSS) 70×
Letkés 1. sz. f. 47,00—48,00 m
- 8—9. *Globigerinoides rubra* (d'ORBIGNY) 80×
Letkés 1. sz. f. 47,00—48,00 m
- 10a—b. *Globorotalia acostaensis* BLOW 70×
Letkés 1. sz. f. 47,00—48,00 m
- 11a—b. *Globoquadrina altispira globosa* BOLLI 70×
Nagybörzsöny 8. sz. f. 53,00—55,00 m
- 12a—b. *Hasterigerina pelagica* d'ORBIGNY 70×
Nagybörzsöny 8. sz. f. 53,00—55,00 m
- 13a—b. *Globoquadrina dehiscens* CHAPMAN—PARR—COLLINS 70×
Nagybörzsöny 8. sz. f. 53,00—55,00 m

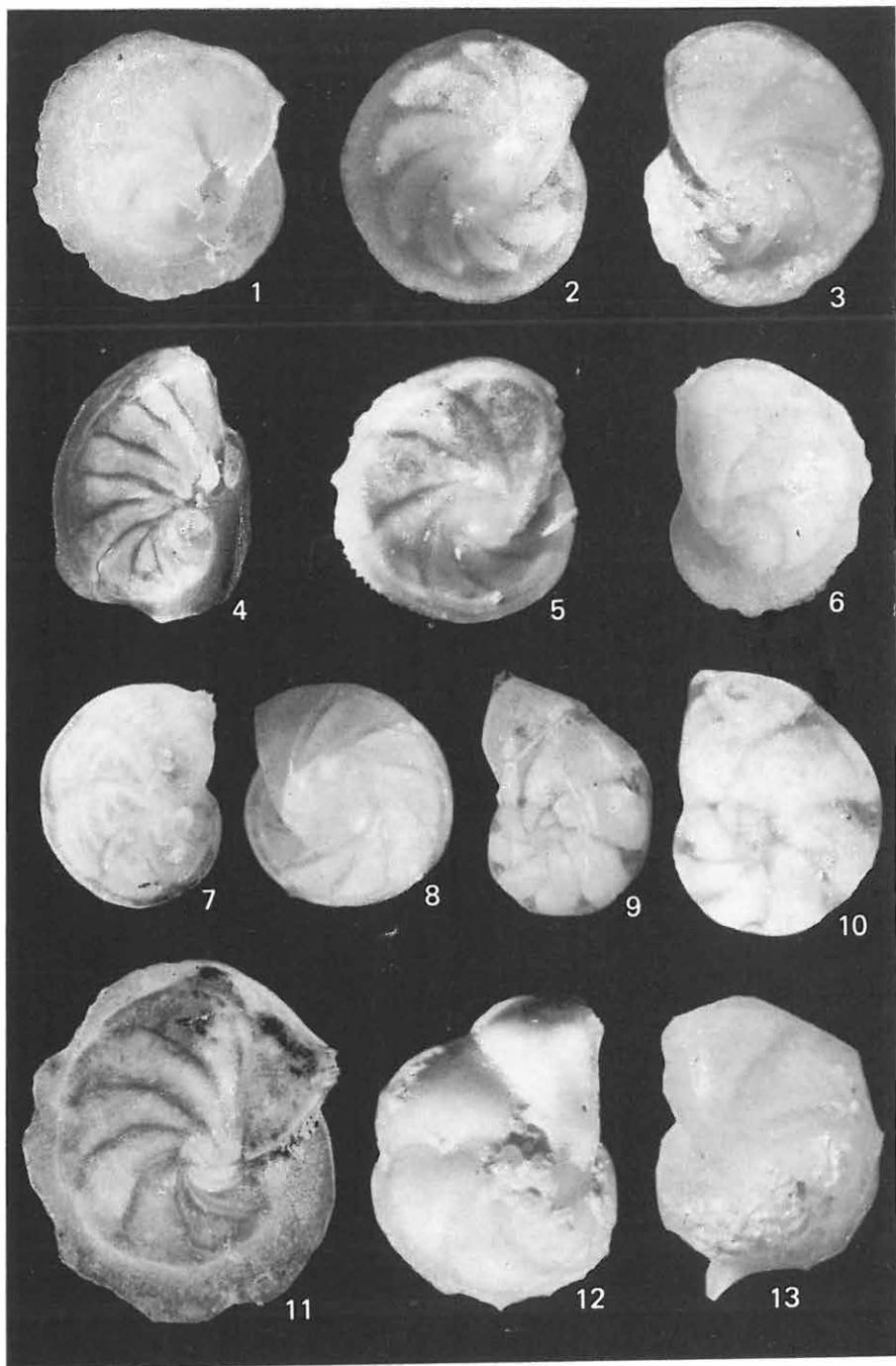


XCVI. tábla — Plate XCVI

Alsó-bádeni — Lower Badenian

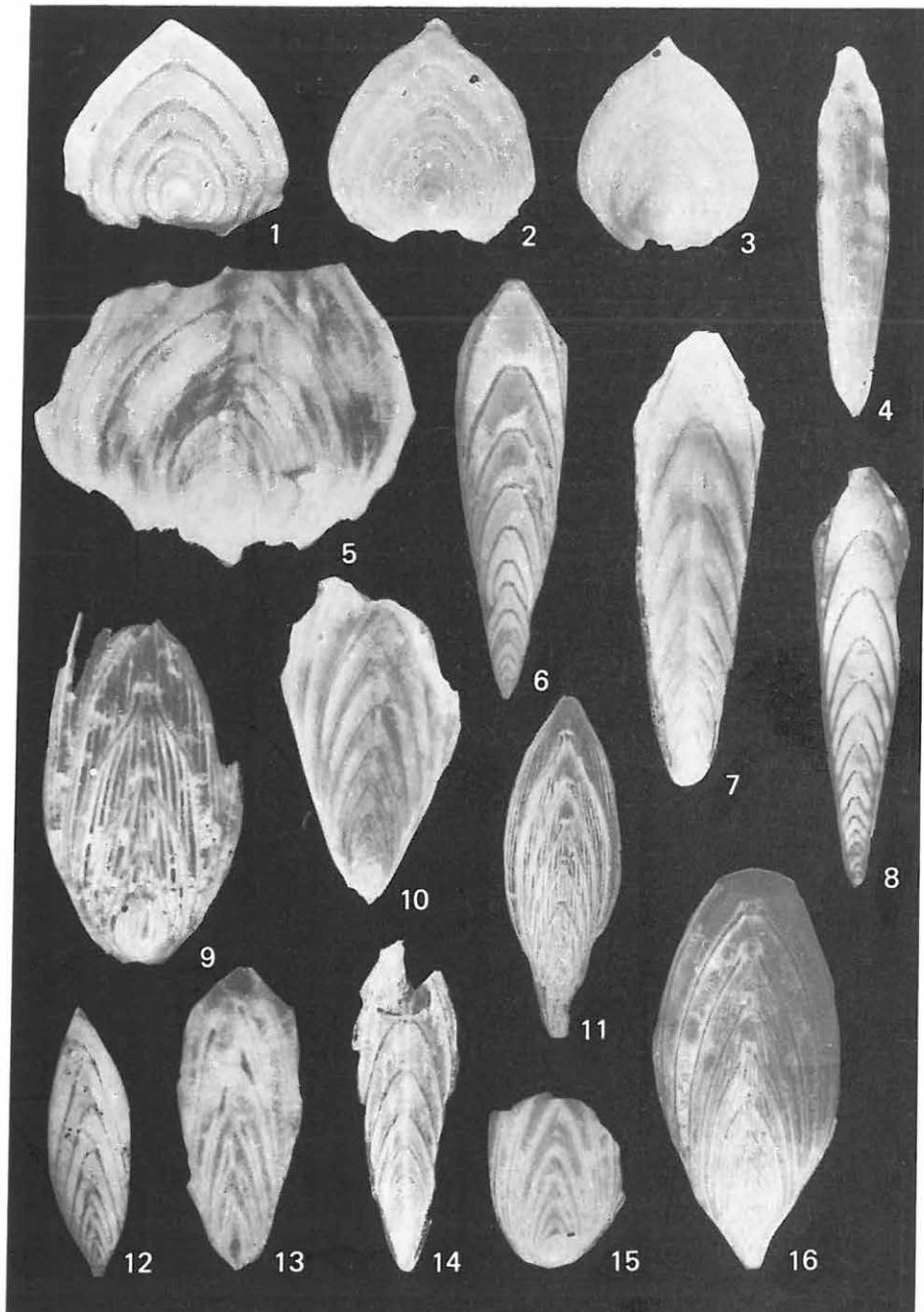
Medence fácies — Basin facies

1. *Lenticulina vitrea* (SEGUENZA) 40×
Letkés 1. sz. f. 47,00—48,00 m
2. *Lenticulina cultrata* (MONTFORT) 30×
Szokolya 2. sz. f. 37,00—37,90 m
3. *Lenticulina similis* (D'ORBIGNY) 30×
Szokolya 2. sz. f. 37,00—37,90 m
4. *Planularia grundensis* (KARRER) 30×
Letkés 1. sz. f. 47,00—48,00 m
5. *Lenticulina dubia* (SEGUENZA) 30×
Szokolya 2. sz. f. 37,00—37,90 m
6. *Lenticulina crassa* (D'ORBIGNY) 30×
Szokolya 2. sz. f. 37,00—37,90 m
7. *Lenticulina ariminensis* (D'ORBIGNY) 30×
Letkés 1. sz. f. 47,00—48,00 m
8. *Lenticulina macrodisca* (REUSS) 30×
Letkés 1. sz. f. 47,00—48,00 m
- 9—10. *Lenticulina alabamensis* (CUSHMAN) 30×
Letkés 1. sz. f. 47,00—48,00 m
11. *Lenticulina grandis* (TEN DAM) 30×
Letkés 1. sz. f. 47,00—48,00 m
12. *Planularia helena* (KARRER) 40×
Letkés 1. sz. f. 47,00—48,00 m
13. *Lenticulina echinata* (D'ORBIGNY) 40×
Letkés 1. sz. f. 47,00—48,00 m



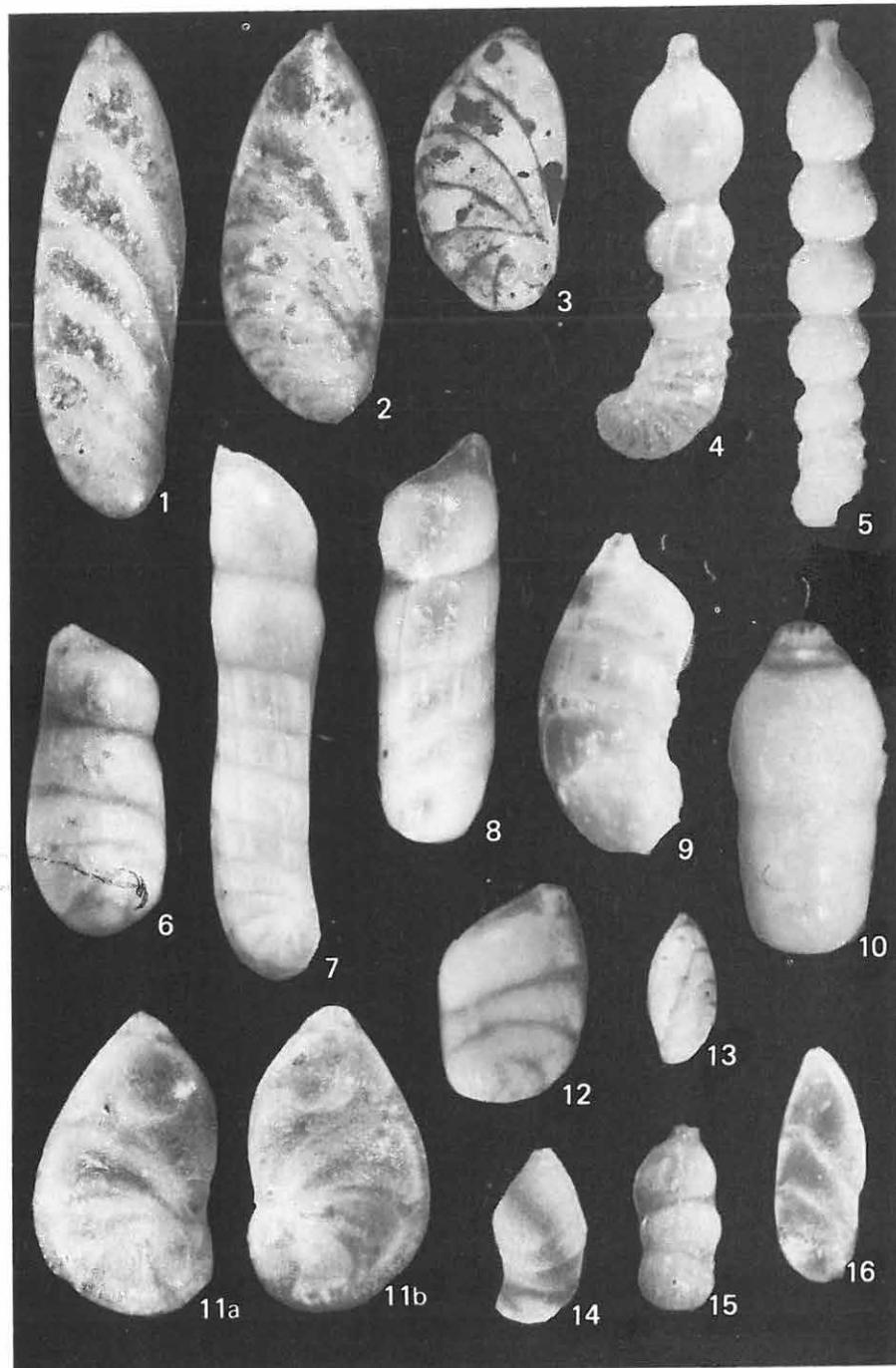
XCVII. tábla — Plate XCVII
Alsó-bádeni — Lower Badenian
Medence fácies — Basin facies

- 1—3. *Frondicularia annularis* D'ORBIGNY 10×
 Szokolya 2. sz. f. 57,50—58,30 m
4. *Plectofrondicularia diversicostata* (NEUGEBOREN) 20×
 Szokolya 2. sz. f. 57,50—58,30 m
5. *Palmula appendicifera* NYÍRÓ 10×
 Szokolya 2. sz. f. 57,50—58,30 m
- 6., 8. *Frondicularia laevigata* KARRER 10×
 Szokolya 2. sz. f. 28,40—28,80 m
7. *Frondicularia raricosta* KARRER 10×
 Szokolya 2. sz. f. 28,40—28,80 m
9. *Frondicularia reussi* KARRER 10×
 Szokolya 2. sz. f. 33,50—34,70 m
10. *Frondicularia jarvisi* CUSHMAN—TODD 10×
 Nagybörzsöny 8. sz. f. 88,90 m
11. *Frondicularia badenensis* KARRER 10×
 Nagybörzsöny 8. sz. f. 150,00 m
12. *Palmula longiforma* BERMUDEZ 40×
 Nagybörzsöny 12. sz. f. 82,00 m
13. *Sigmomorphina frondiculariformis* GALLOWAY—WISSLER 10×
 Nagybörzsöny 8. sz. f. 88,90 m
14. *Frondicularia interrupta* KARRER 10×
 Nagybörzsöny 8. sz. f. 150,00 m
15. *Frondicularia bulbosa* CORYELL—RIVERO 10×
 Nagybörzsöny 12. sz. f. 82,00 m
16. *Frondicularia sculpta* KARRER 10×
 Nagybörzsöny 12. sz. f. 82,00 m



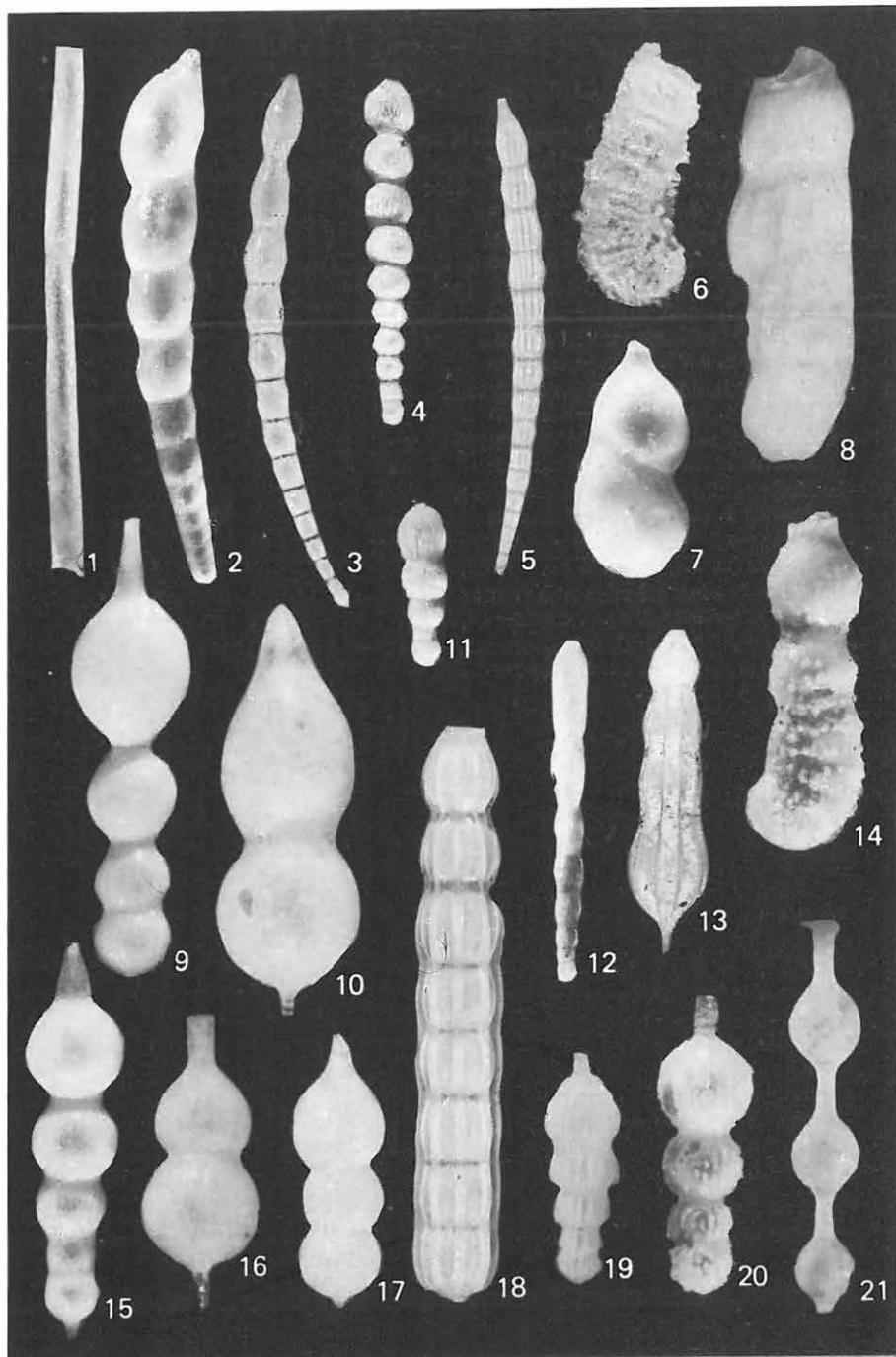
XCVIII. tábla — Plate XCVIII
Alsó-bádeni — Lower Badenian
Medence fáciés — Basin facies

- 1—3. *Planularia crepidula* FICHTEL — MOLL 50×
 Letkés 12. sz. f. 82,00 m
4. *Marginulina semituberculata* var. *deducta* (FRANZENAU) 50×
 Szokolya 2. sz. f. 33,50—34,70 m
5. *Marginulina hirsuta* d'ORBIGNY 60×
 Szokolya 2. sz. f. 33,50—34,70 m
6. *Marginulina ornata* HANTKEN 40×
 Szokolya 2. sz. f. 26,20—27,20 m
- 7—8. *Marginulina vaginella* REUSS 60×
 Szokolya 2. sz. f. 26,20—27,20 m
9. *Marginulina pustulosa* NEUGEBOREN 60×
 Letkés 1. sz. f. 49,00—50,00 m
10. *Nodosaria radicula glanduliniformis* DERVIEUX 40×
 Szokolya 2. sz. f. 109,00—111,00 m
- 11a—b. *Astrocillus planatus* GALLOWAY — WISSLER 50×
 Perőcsény 3. sz. f. 60,00 m
12. *Marginulina ornata* HANTKEN 50×
 Szokolya 2. sz. f. 26,20—27,20 m
13. *Saracenaria latifrons* (BRADY) 40×
 Perőcsény 3. sz. f. 60,00 m
14. *Marginulina pedum* d'ORBIGNY 40×
 Perőcsény 3. sz. f. 60,00 m
15. *Marginulina striatula* CUSHMAN 40×
 Perőcsény 3. sz. f. 60,00 m
16. *Planularia simplex* d'ORBIGNY 40×
 Perőcsény 3. sz. f. 60,00 m



XCIX. tábla — Plate XCIX
Alsó-bádeni — Lower Badenian
Medence fácies — Basin facies

1. *Nodosaria longiscata* d'ORBIGNY 50×
 Vámosmikolai térképlap 83. sz. feltárás
2. *Dentalina punctata* d'ORBIGNY 50×
 Vámosmikolai térképlap 83. sz. feltárás
3. *Stilostomella pauperata* (d'ORBIGNY) 40×
 Perőcsény 3. sz. f. 60,0 m
4. *Nodosaria perversa* SCHWAGER 40×
 Vámosmikolai térképlap 83. sz. feltárás
5. *Dentalina vertebralis* (BATSCH) 40×
 Perőcsény 3. sz. f. 85,8 m
6. *Marginulina echinata* NEUGEBOREN 40×
 Nagybörzsöny 12. sz. f. 82,0 m
7. *Dimorphina variabilis* (NEUGEBOREN) 40×
 Szokolya 2. sz. f. 76,7—77,5 m
8. *Marginulina costata* BATSCH 50×
 Szokolya 2. sz. f. 26,2—27,5 m
9. *Nodosaria reussiana* NEUGEBOREN 50×
 Szokolya 2. sz. f. 76,7—77,5 m
10. *Nodosaria simplex* SILVESTRI 70×
 Szokolya 2. sz. f. 33,5—34,7 m
11. *Nodosaria badenensis* d'ORBIGNY 30×
 Szokolya 2. sz. f. 78,3—79,1 m
12. *Nodosaria ewaldi* (REUSS) 40×
 Szokolya 2. sz. f. 78,3—79,1 m
13. *Nodosaria bacilloides* HANTKEN 50×
 Szokolya 2. sz. f. 77,5—78,3 m
14. *Marginulina hirsuta* d'ORBIGNY 60×
 Szokolya 2. sz. f. 33,5—34,7 m
15. *Lagenonodosaria scalaris* var. *sagamiensis* (ASANO) 50×
 Szokolya 2. sz. f. 12,2—13,2 m
16. *Lagenonodosaria proxima* (SILVESTRI) 50×
 Szokolya 2. sz. f. 12,2—13,2 m
17. *Nodosaria soluta* REUSS 50×
 Szokolya 2. sz. f. 8,6—9,6 m
18. *Nodosaria raphanistrum* LINNE 50×
 Szokolya 2. sz. f. 8,6—9,6 m
19. *Lagenonodosaria scalaris* (BATSCH) 40×
 Nagybörzsöny 12. sz. f. 82,0 m
20. *Nodosaria hispida* d'ORBIGNY 60×
 Nagybörzsöny 12. sz. f. 82,0 m
21. *Nodosaria pyrula* d'ORBIGNY 60×
 Perőcsény 3. sz. f. 60,0 m

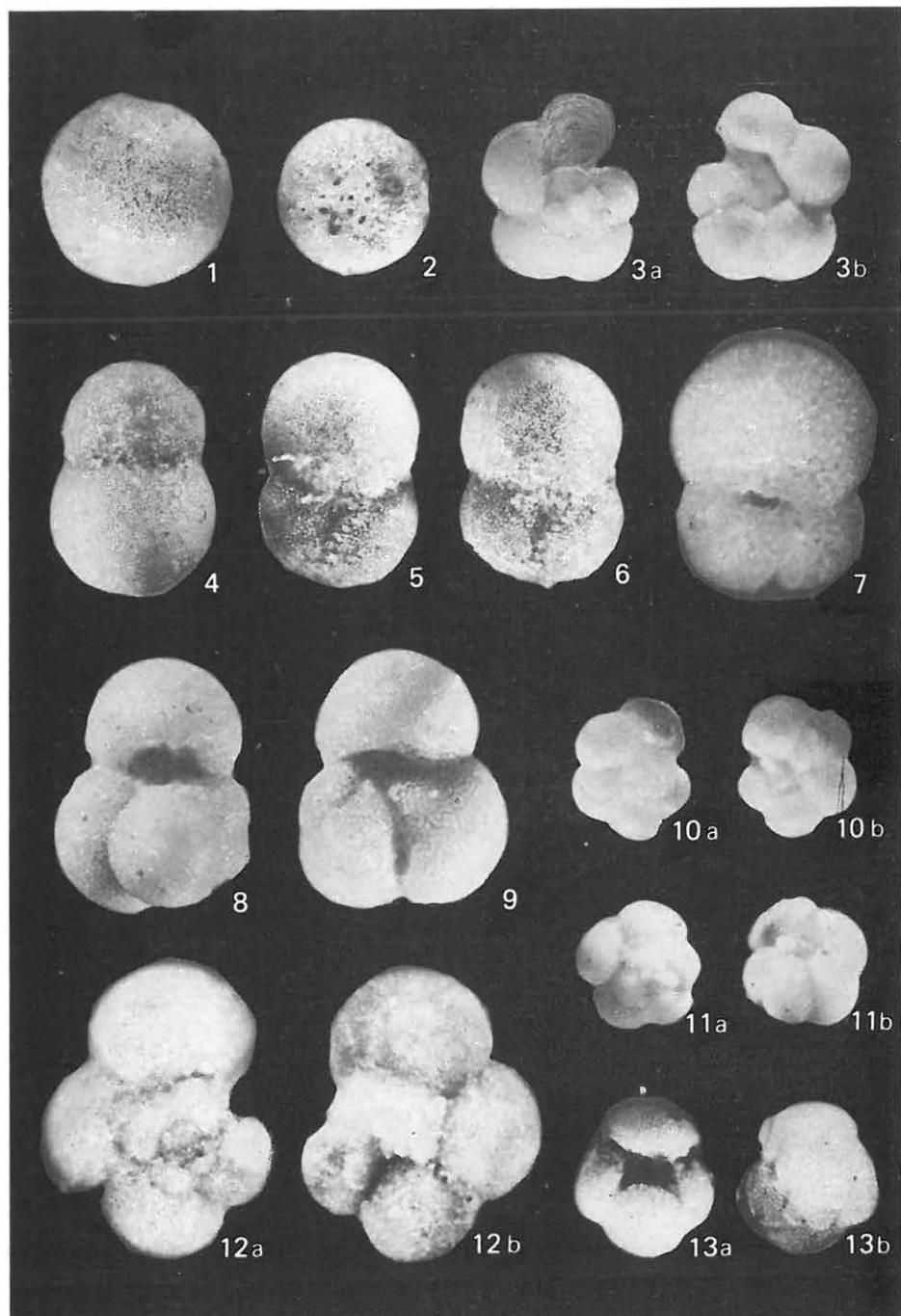


C. tábla — Plate C

Alsó-bádeni — Lower Badenian

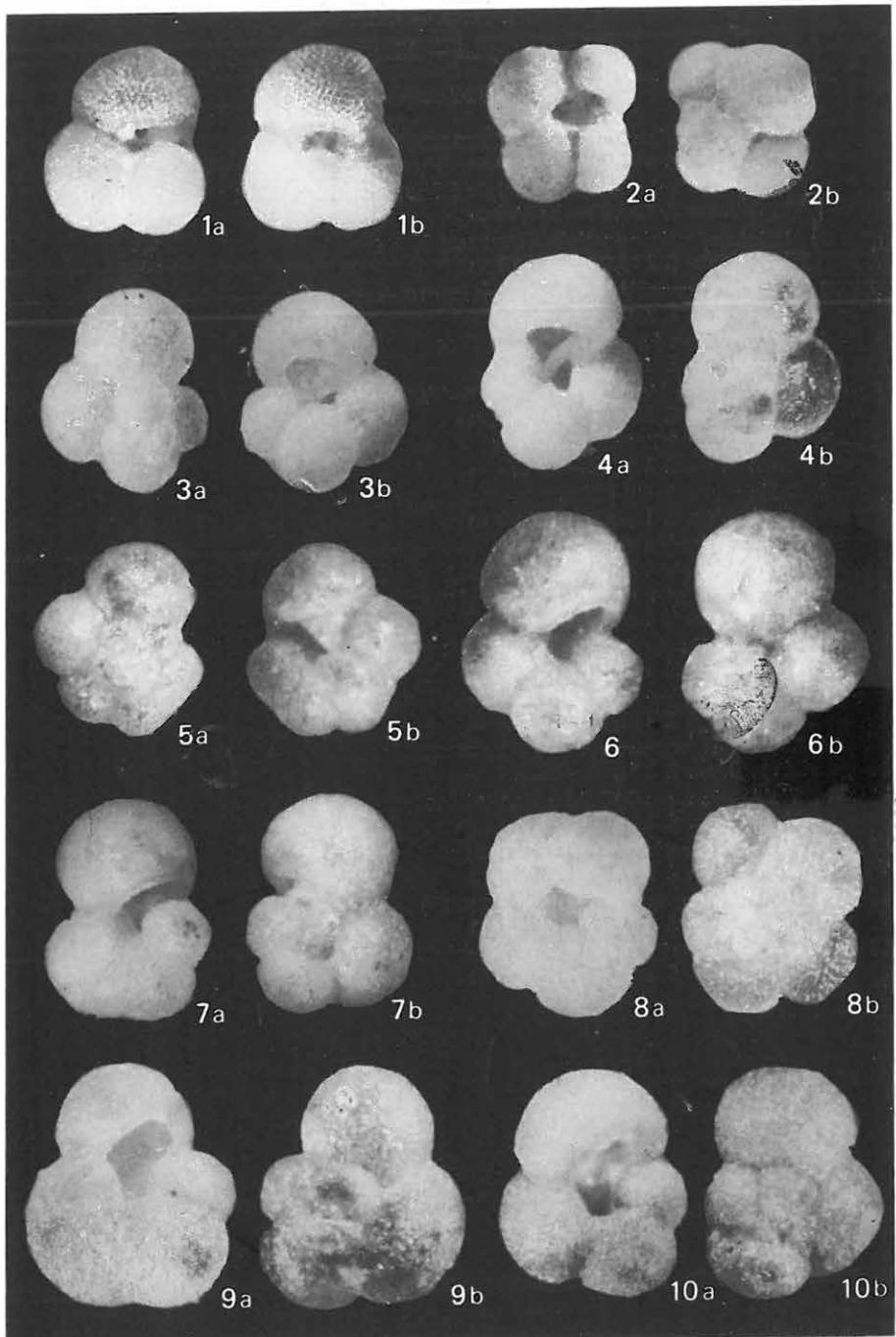
Medence fácies — Basin facies

1. *Orbulina universa* d'ORBIGNY 70×
Letkés 1. sz. f. 47,00—48,00 m
2. *Orbulina suturalis* BRÖNNIMANN 50×
Letkés 1. sz. f. 47,00—48,00 m
- 3a—b. *Globigerina calida* PARKER 70×
Letkés 1. sz. f. 47,00—48,00 m
4. *Orbulina bilobata* (d'ORBIGNY) 70×
Letkés 1. sz. f. 47,00—48,00 m
- 5—6. *Globigerinoides transitoria* BLOW 70×
Letkés 1. sz. f. 47,00—48,00 m
7. *Globigerinoides triloba* (REUSS) 70×
Letkés 1. sz. f. 47,00—48,00 m
- 8—9. *Globigerinoides rubra* (d'ORBIGNY) 80×
Letkés 1. sz. f. 47,00—48,00 m
- 10a—b. *Globorotalia acostaensis* BLOW 70×
Letkés 1. sz. f. 47,00—48,00 m
- 11a—b. *Globoquadrina altispira globosa* BOLLI 70×
Nagybörzsöny 8. sz. f. 53,00—55,00 m
- 12a—b. *Hasterigerina pelagica* d'ORBIGNY 70×
Nagybörzsöny 8. sz. f. 53,00—55,00 m
- 13a—b. *Globoquadrina dehiscens* CHAPMAN—PARR—COLLINS 70×
Nagybörzsöny 8. sz. f. 53,00—55,00 m



CI. tábla — Plate CI
Alsó-bádeni — Lower Badenian
Medence fácies — Basin facies

- 1a—b. *Globigerinoides rubra* (d'ORBIGNY) 70×
Letkés 3. sz. f. 18,00—20,00 m
- 2a—b. *Globigerina quadrilatera* GALLOWAY—WISSLER 70×
Letkés 3. sz. f. 18,00—20,00 m
- 3a—b. *Globigerina apertura* CUSHMAN 80×
Letkés 3. sz. f. 18,00—20,00 m
- 4a—b. *Globigerina decoraperta* TAKAYANAGI—SAITO 70×
Letkés 3. sz. f. 18,00—20,00 m
- 5a—b. *Globorotalia incompta* (CIFELLI) 80×
Letkés 3. sz. f. 18,00—20,00 m
- 6a—b. *Globorotalia obesa* (BOLLI) 80×
Letkés 3. sz. f. 18,00—20,00 m
- 7a—b. *Globigerina bulbosa* LE ROY 80×
Letkés 3. sz. f. 18,00—20,00 m
- 8a—b. *Globigerina concinna* REUSS 80×
Letkés 3. sz. f. 18,00—20,00 m
- 9a—b. *Globigerina foliata* BOLLI 80×
Letkés 3. sz. f. 18,00—20,00 m
- 10a—b. *Globigerina praebulloides* BLOW 80×
Letkés 3. sz. f. 18,00—20,00 m

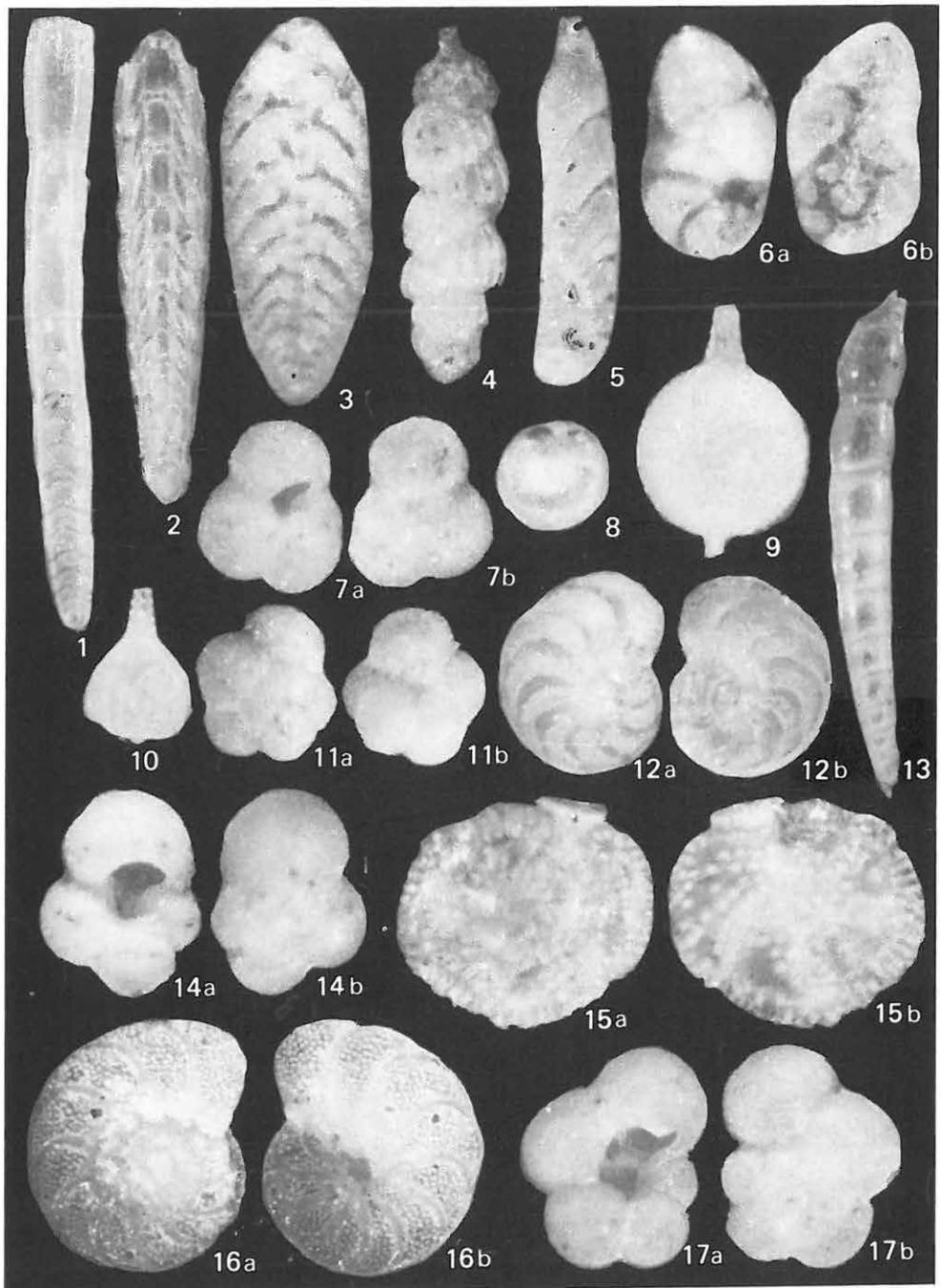


III. tábla — Plate III

Kárpáti — Karpatian

Medence fácies — Basin facies

1. *Amphimorphina hauerina* NEUGEBOREN 100×
Hont 2. sz. f. 136,00—136,70 m
2. *Plectofrondicularia diversicostata* (NEUGEBOREN) 100×
Hont 2. sz. f. 136,00—136,70 m
3. *Bolivina fastigia fastigia* CUSHMAN 120×
Hont 2. sz. f. 136,00—136,70 m
4. *Uvigerina graciliformis* PAPP—TURNOVSKY 100×
Hont 2. sz. f. 136,00—136,70 m
5. *Marginulina jarvisi* CUSHMAN 60×
Hont 2. sz. f. 136,00—136,70 m
- 6a—b. *Dyocibicides biserialis* CUSHMAN—VALENTINE 60×
Hont 2. sz. f. 136,00—136,70 m
- 7a—b. *Globigerina foliata* BOLLI 50×
Hont 2. sz. f. 136,00—136,70 m
8. *Oolina marginata* (WALKER—BOYS) 40×
Hont 2. sz. f. 136,00—136,70 m
9. *Lagena hispida* REUSS 100×
Hont 2. sz. f. 136,00—136,70 m
10. *Lagena sulcata* var. *interrupta* WILLIAMSON 40×
Hont 2. sz. f. 136,00—136,70 m
- 11a—b. *Globorotalia acostaensis* BLOW 50×
Hont 2. sz. f. 136,00—136,70 m
- 12a—b. *Hanzawaia boueana* (d'ORBIGNY) 70×
Hont 2. sz. f. 136,00—136,70 m
13. *Stilostomella pauperata* (d'ORBIGNY) 60×
Hont 2. sz. f. 136,00—136,70 m
- 14a—b. *Globigerina praebulloides* BLOW 50×
Hont 2. sz. f. 136,00—136,70 m
- 15a—b. *Siphonina reticulata* (CŽJZEK) 70×
Hont 2. sz. f. 136,00—136,70 m
- 16a—b. *Cibicidoides ungerianus* (d'ORBIGNY) 63×
Hont 2. sz. f. 136,00—136,70 m
- 17a—b. *Globigerina ciperoensis ottangensis* RÖGL 60×
Hont 2. sz. f. 136,00—136,70 m

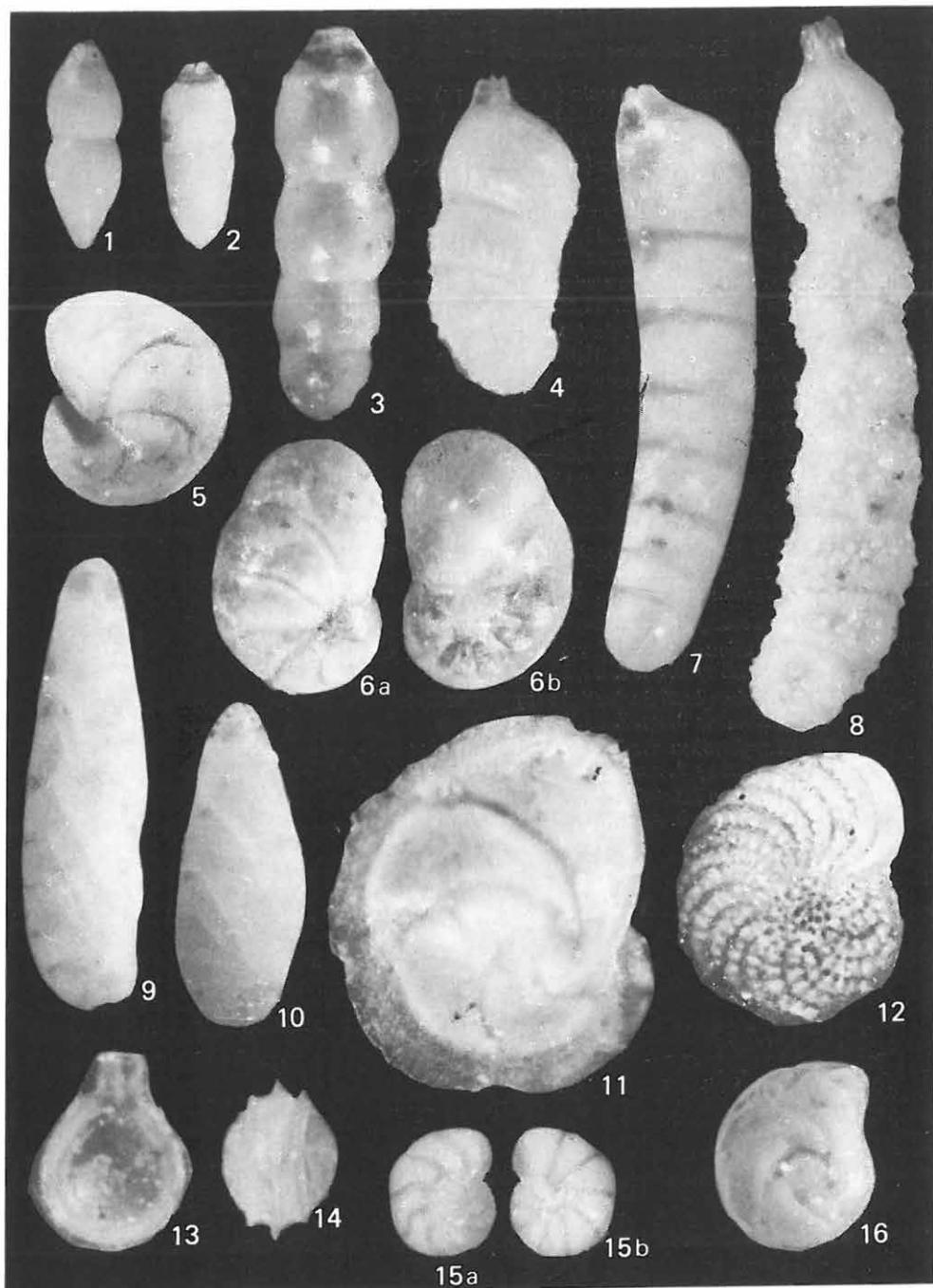


CIII. tábla — Plate CIII

Kárpáti — Karpatian

Medence fáciés — Basin facies

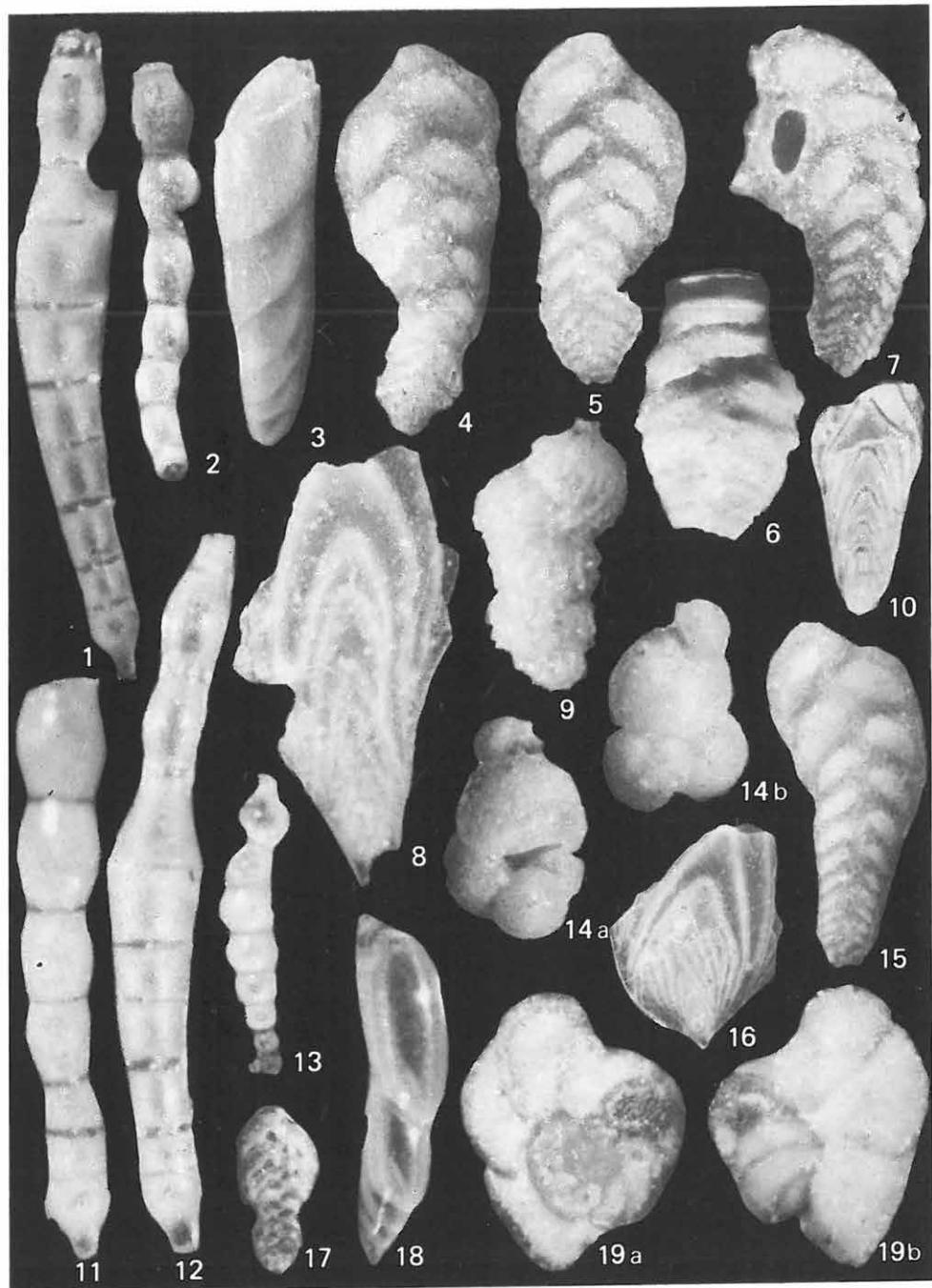
- 1—2. *Pseudonodosaria discreta* (REUSS) 40×
Hont 2. sz. f. 146,0—148,5 m
3. *Nodosaria radicula* (LINNE) 50×
Hont 2. sz. f. 146,0—148,5 m
4. *Marginulina dingdeni* TEN DAM—REINHOLD 60×
Hont 2. sz. f. 146,0—148,5 m
5. *Lenticulina crassa* (D'ORBIGNY) 45×
Hont 2. sz. f. 146,0—148,5 m
- 6a—b. *Cancris auriculus* (FICHTEL—MOLL) 50×
Hont 2. sz. f. 146,0—148,5 m
7. *Dentalina baggi* GALLOWAY—WISSLER 60×
Hont 2. sz. f. 146,0—148,5 m
8. *Marginulina hirsuta* D'ORBIGNY 80×
Hont 2. sz. f. 146,0—148,5 m
- 9—10. *Astacolus obtusatus* (REUSS) 50×
Hont 2. sz. f. 146,0—148,5 m
11. *Lenticulina cassis* (LAMARCK) 50×
Hont 2. sz. f. 146,0—148,5 m
12. *Elphidium fichtellianum* (D'ORBIGNY) 40×
Hont 2. sz. f. 146,0—148,5 m
- 13—14. *Oolina marginatoperforata* (SEGUENZA) 40×
Hont 2. sz. f. 146,0—148,5 m
- 15a—b. *Gyroidinoides soldanii* (D'ORBIGNY) 30×
Hont 2. sz. f. 146,0—148,5 m
16. *Lenticulina clericii* (FORNASINI) 45×
Hont 2. sz. f. 146,0—148,5 m



CIV. tábla — Plate CIV

Rendellenes példányok — Irregular specimens

- 1., 12. *Stilostomella pauperata* (d'ORBIGNY) 60×
Perőcsény 3. sz. f. 31,50—100,00 m
(sérülés okozta regenerálódás)
- 2., 13. *Stilostomella elegans* (d'ORBIGNY) 40×
Perőcsény 3. sz. f. 31,50—100,00 m
3. *Dentalina mucronata* NEUGEBOREN 60×
Perőcsény 3. sz. f. 31,50—100,00 m
(sérülés okozta regenerálódás)
- 4., 5., 7., 15. *Spiroplectammina carinata* (d'ORBIGNY) 70×
Perőcsény 3. sz. f. 31,50—100,00 m
6. *Vulvulina pennatula* (BATSCH) 50×
Perőcsény 3. sz. f. 31,50—100,00 m
8. *Frondicularia laevigata* KARRER 50×
Perőcsény 3. sz. f. 31,50—100,00 m
9. *Uvigerina asperula* ČŽJŽEK 60×
Perőcsény 3. sz. f. 31,50—100,00 m
10. *Frondicularia raricosta* KARRER 20×
Perőcsény 3. sz. f. 31,50—100,00 m
(sérülés okozta regenerálódás)
11. *Stilostomella pauperata* (d'ORBIGNY) 60×
Perőcsény 3. sz. f. 31,50—100,00 m
- 14a—b. *Globigerina apertura* CUSHMAN 40×
Perőcsény 3. sz. f. 31,50—100,00 m
16. *Frondicularia vaughani* CUSHMAN 40×
Perőcsény 3. sz. f. 31,50—100,00 m
17. *Bolivina fastigia fastigia* CUSHMAN 40×
Perőcsény 3. sz. f. 31,50—100,00 m
18. *Marginulina similis* (d'ORBIGNY) 60×
Perőcsény 3. sz. f. 31,50—100,00 m
- 19a—b. *Cibicides lobatulus* (WALKER—JACOB) 50×
Perőcsény 3. sz. f. 31,50—100,00 m



CV. tábla — Plate CV

Miocén

Spirosigmoilina tenuis (CŽJŽEK)

Szob 2. sz. f. 241,1—244,0 m

1. Totálkép — Total picture 130×
2. A ház felszíne a túl alakú kristályokkal — Surface of the test with needle-form crystals 6000×

Amphicoryna falx (JONES—PARKER)

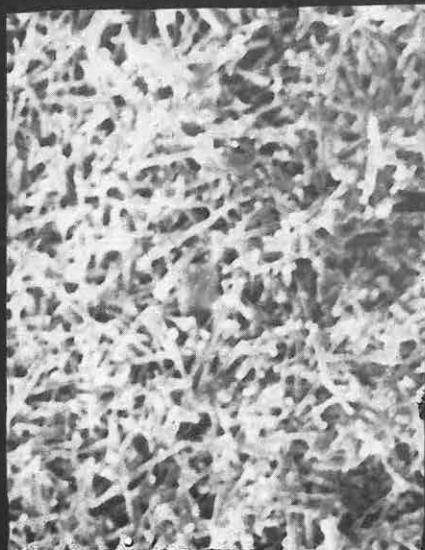
Hont 2. sz. f. 146,0—148,5 m

3. Nyakrész a gyöngyös díszítéssel és a nyílásban elhelyezkedő szitaszerű lemezzel — Neck-part with pearl-like ornaments and a sieve-like plate situated in the aperture 1000×
4. Totálkép — Total picture 200×

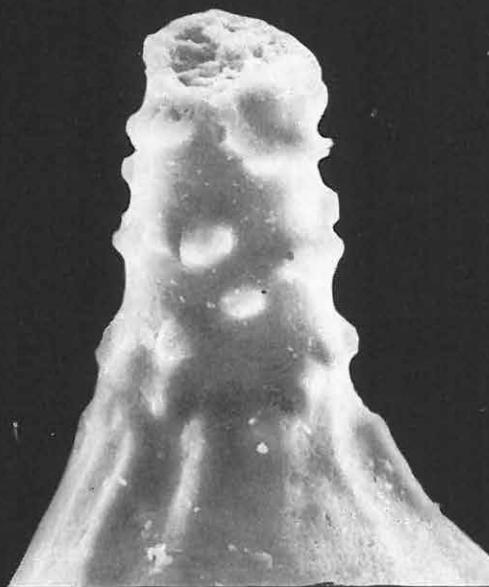
SEMs



1



2



3



4

CVI. tábla — Plate CVI

Miocén

Spiroloculina striatula TEN DAM—REINHOLD

Szokolya 2. sz. f. 104,7—106,4 m

1. Totálkép — Total picture 44×

2. Nyílás a bordás díszítéssel — Aperture with ribbed ornaments 120×

SEM



CVII. tábla — Plate CVII

Miocén

Lenticulina cultrata (MONTFORT)

Letkés 1. sz. f. 28,0–30,0 m

1. Totálkép — Total picture 150×
2. Két kamra közötti perforációmentes felület — Perforationless surface between two chambers 1500×
3. Sugaras nyílás — Radial aperture 860×
4. A kamrák perforált felülete — Perforated surface of the chambers 10 000×

SEM_s



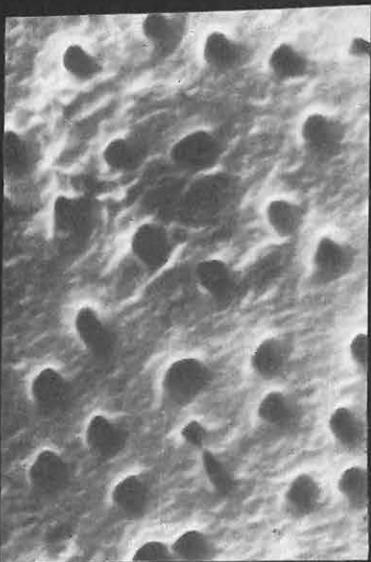
1



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4

CVIII. tábla — Plate CVIII

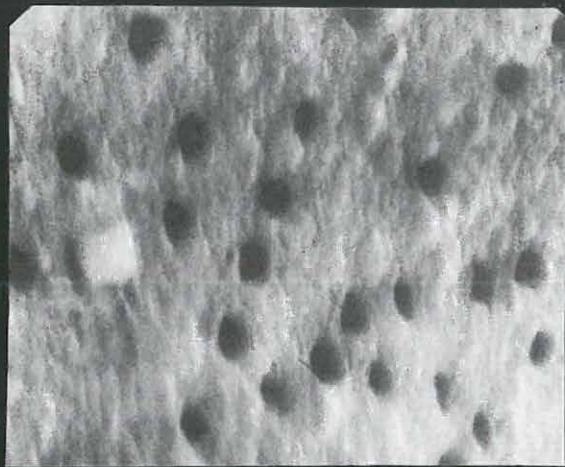
Miocén

Marginulina hispidocostata n. sp.

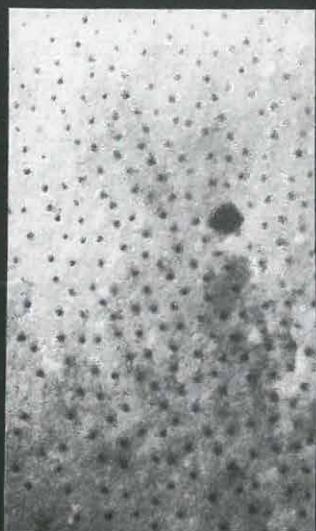
Szokolya 2. sz. f. 26,2—27,2 m

1. A ház felülete a pórusokkal — Surface of the test with pores 10 000×
2. Az utolsó kamra perforált felszíne — Perforated surface of the last chamber 2200×
3. A tüskékkel díszített idősebb kamra felszíne — Surface of an older chamber, ornamented with prickles 1000×
4. Totálkép — Total picture 110×

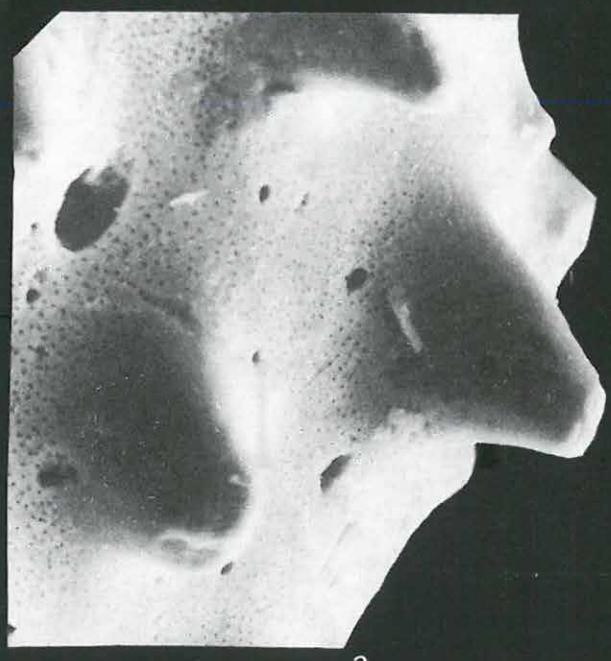
SEM-s



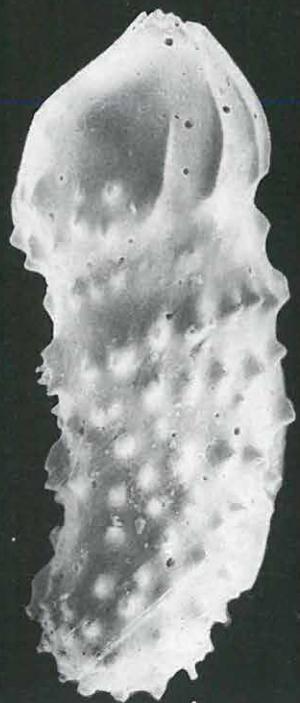
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4

CIX. tábla — Plate CIX

Miocén

Marginulina gemmata (BRADY)

Szokolya 2. sz. f. 71,1—71,9 m

1. Totálkép — Total picture 220×

2. A ház perforált felszíne a tüskés díszítéssel, a tüskék végén jól látható a nagyobb perforáció — Perforated surface of the test with prickled ornaments, major perforations observable at the end of the prickles 780×

Marginulina nana COSTA

Szokolya 2. sz. f. 71,1—71,9 m

3. Totálkép — Total picture 150×

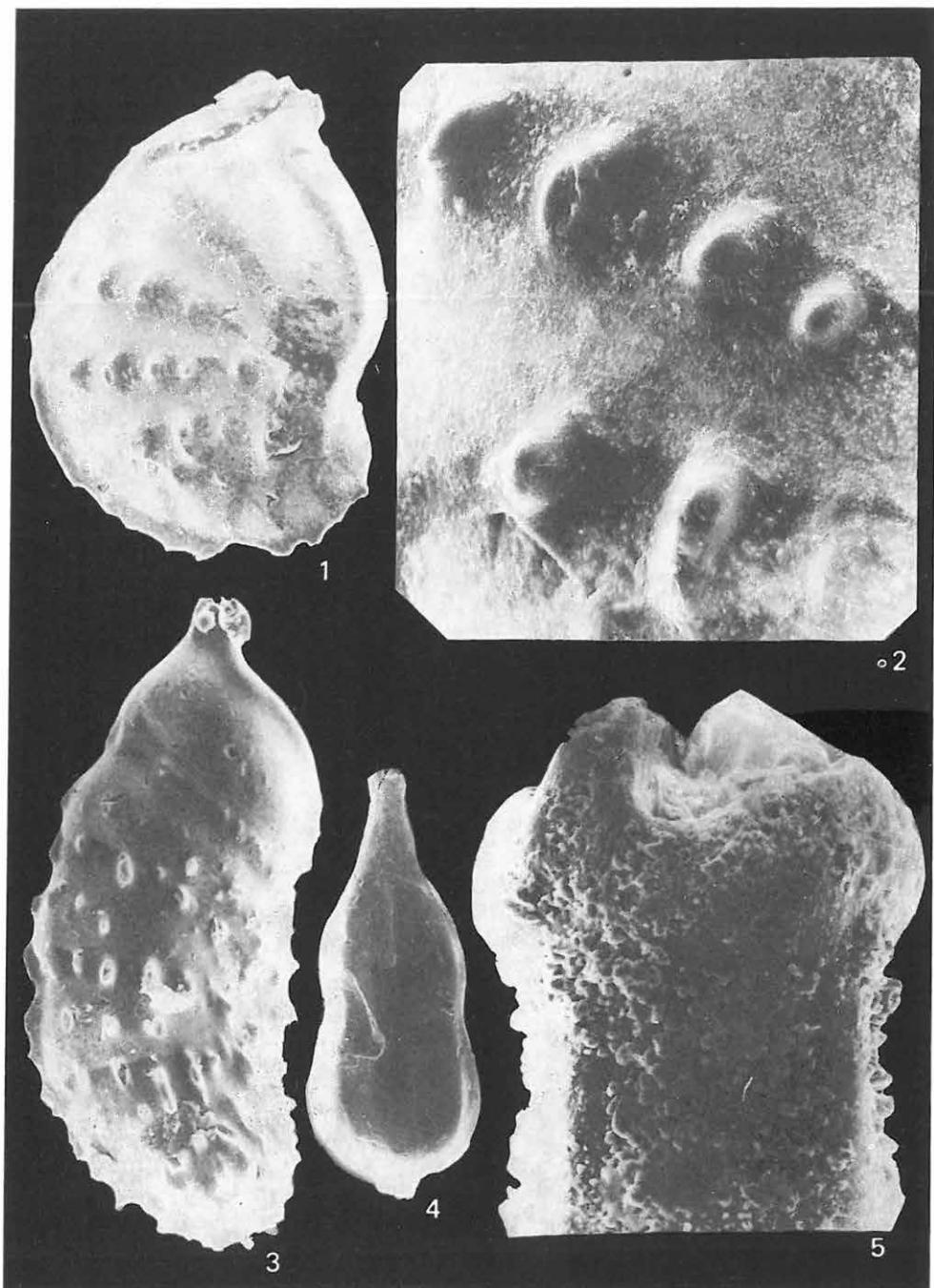
Lagenonodosaria proxima (SILVESTRI)

Szokolya 2. sz. f. 37,0—37,9 m

4. Totálkép — Total picture 110×

5. A gyöngyös díszítésű nyakrész — Neck-part with pearl-like ornament 1200×

SEMs



CX. tábla — Plate CX

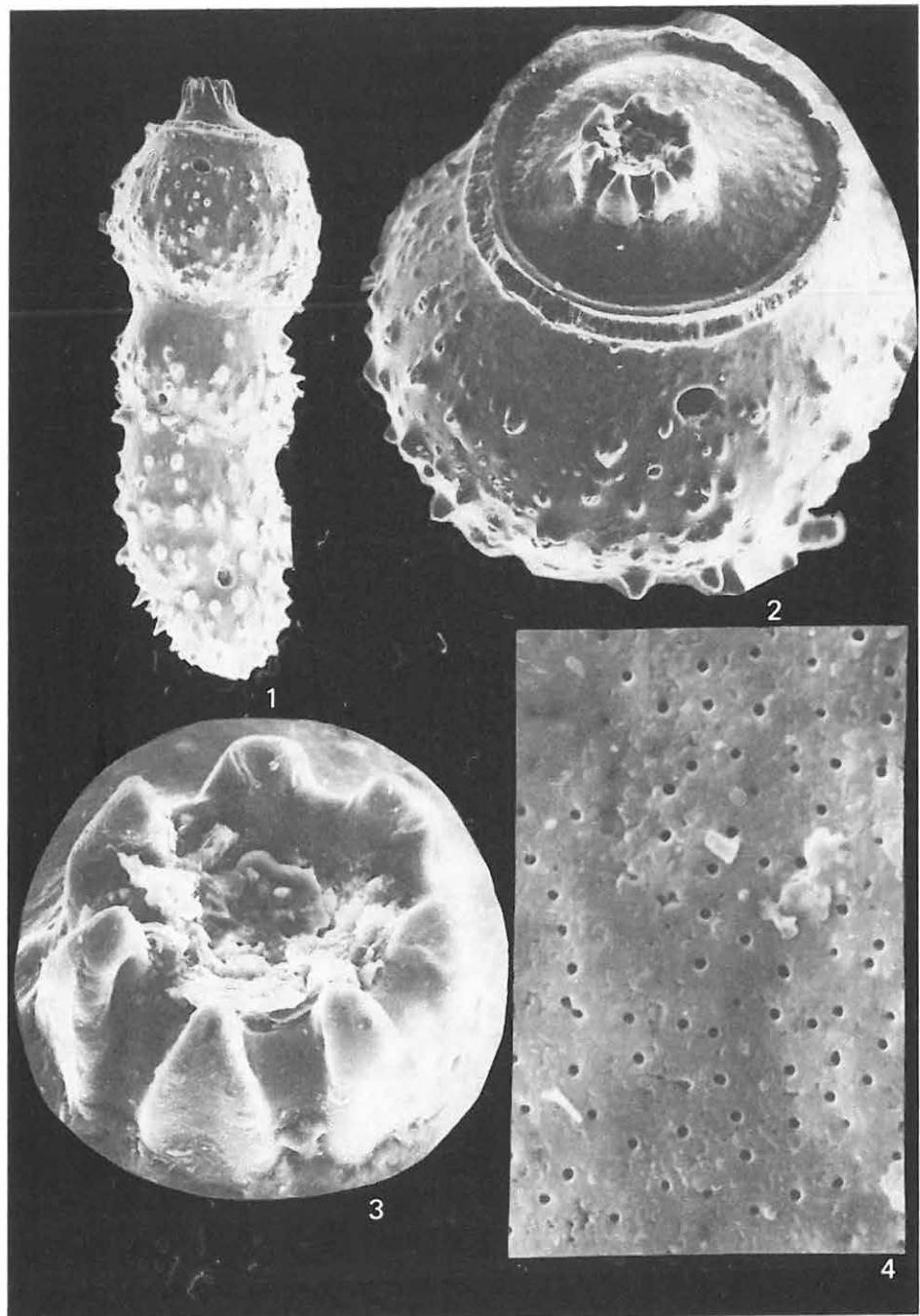
Miocén

Marginulina hirsuta D'ORBIGNY

Szokolya 2. sz. f. 33,5–34,7 m

1. Totálkép — Total picture $150\times$
2. Az utolsó kamra a nyílásossal — Last chamber with the aperture $300\times$
3. Sugaras nyílás — Radial aperture $1000\times$
4. A ház felületének perforációja — Perforation of the surface of the test $6000\times$

SEM



CXI. tábla — Plate CXI

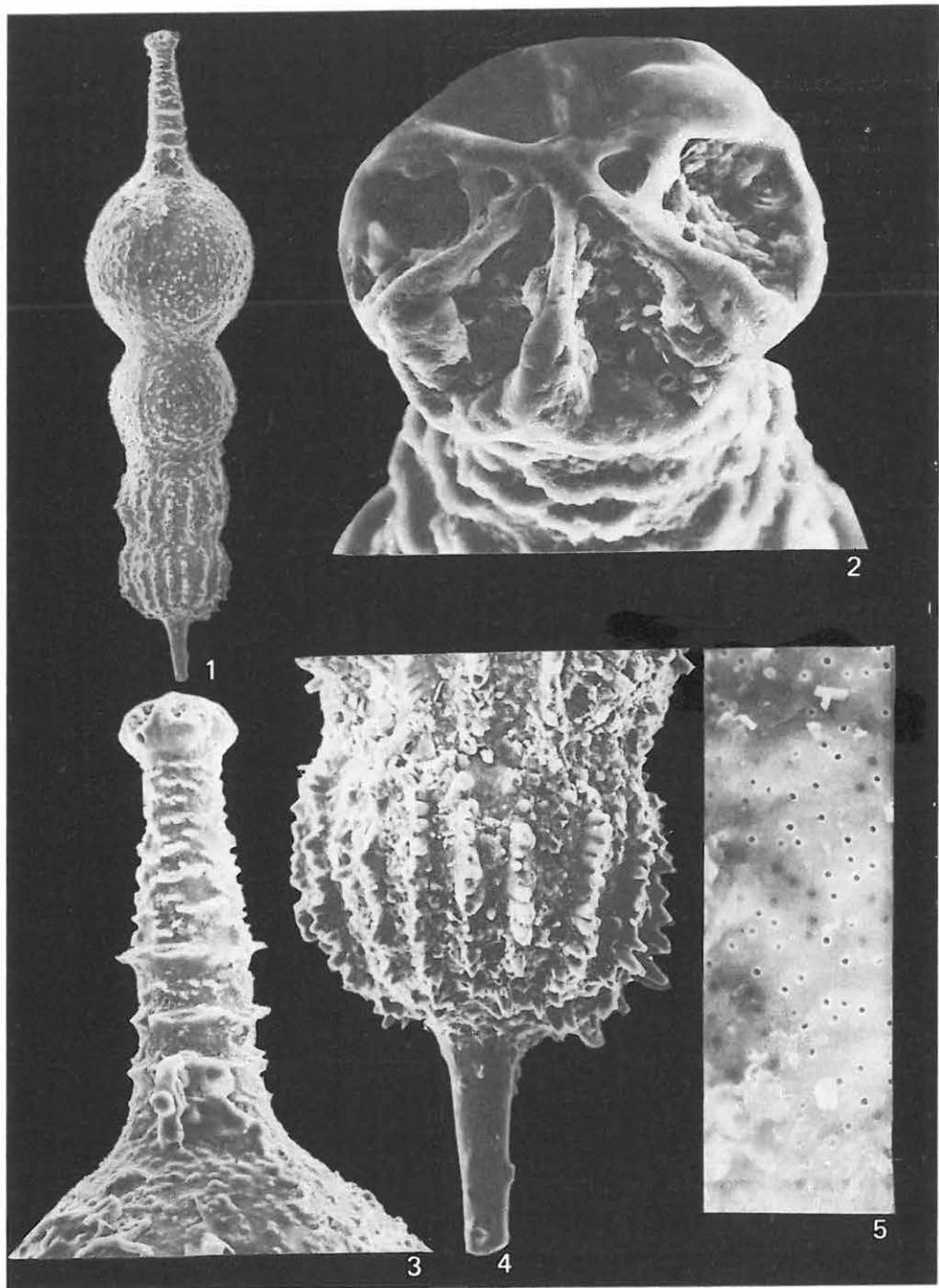
Miocén

Lagenonodosaria scalaris var. *sagamiensis* (ASANO)

Szokolya 2. sz. f. 78,3—79,1 m

1. Totálkép — Total picture 120×
2. A nyakon elhelyezkedő nyílás — Aperture on the neck 1000×
3. A nyakban végződő utolsó kamra — Last chamber, ending at the neck 240×
4. Tüskében végződő kezdőkamra az egyenes sorban elhelyezkedő gyöngyös, tüskés díszítéssel — Early chamber, ending in a prickle with pearl-like, prickled ornaments situated in a straight row 260×
5. Felületi pórusok — Pores on the surface 3000×

SEMs



CXII. tábla — Plate CXII

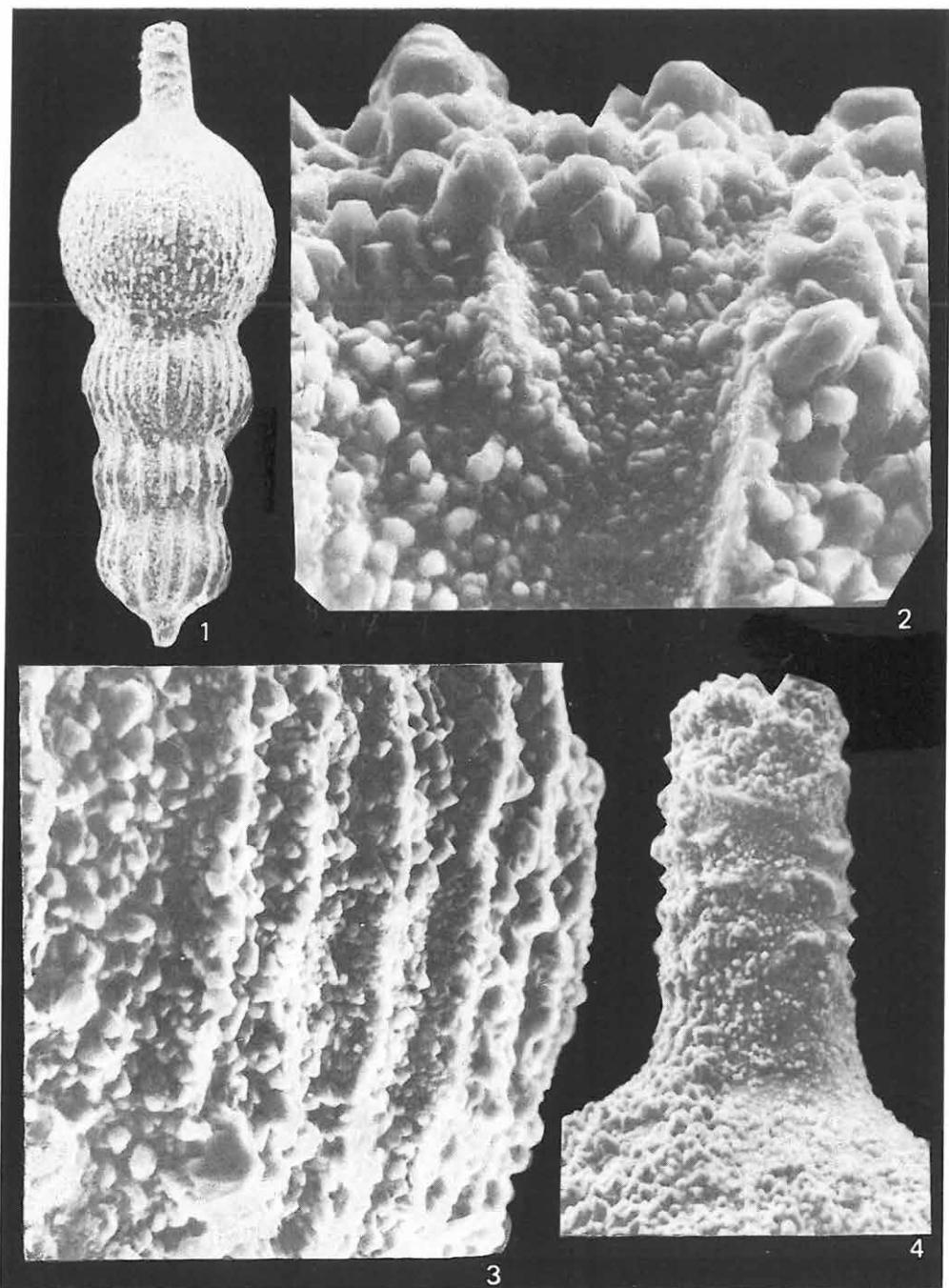
Miocén

Lagenonodosaria scalaris var. *sagamiensis* (ASANO)

Szokolya 2. sz. f. 78,3—79,1 m

1. Totálkép — Total picture 100×
2. Az utolsó kamra felülete — Surface of the last chamber 2000×
3. Részlet a harmadik kamra felületéről — Detail of the surface of the third chamber 1000×
4. A gyöngyökkel díszített nyak — Neck-part ornamented with pearls 400×

SEM



CXIII. tábla — Plate CXIII

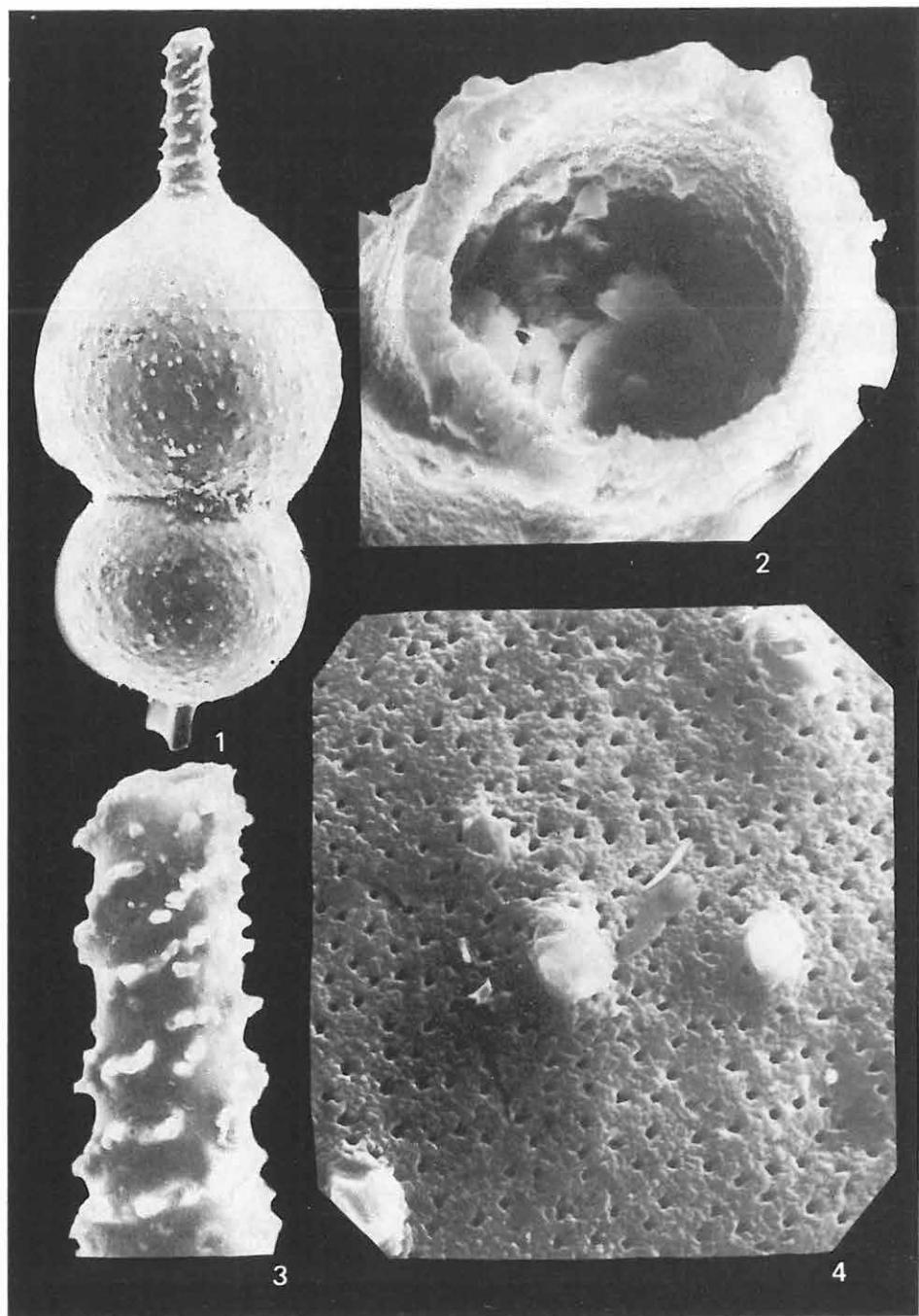
Miocén

Lagenonodosaria papillosa (SILVESTRI)

Hont 2. sz. f. 136,0—136,7 m

1. Totálkép — Total picture 300×
2. A nyakon elhelyezkedő nyílás — Aperture on the neck 4000×
3. A díszített nyak — Ornamented neck 1000×
4. A ház felületét borító perforáció — Perforations covering the surface of the test 6000×

SEMs



CXIV. tábla — Plate CXIV

Miocén

Lagenonodosaria scalaris (BATSCH)

Szokolya 2. sz. f. 5,4—7,2 m

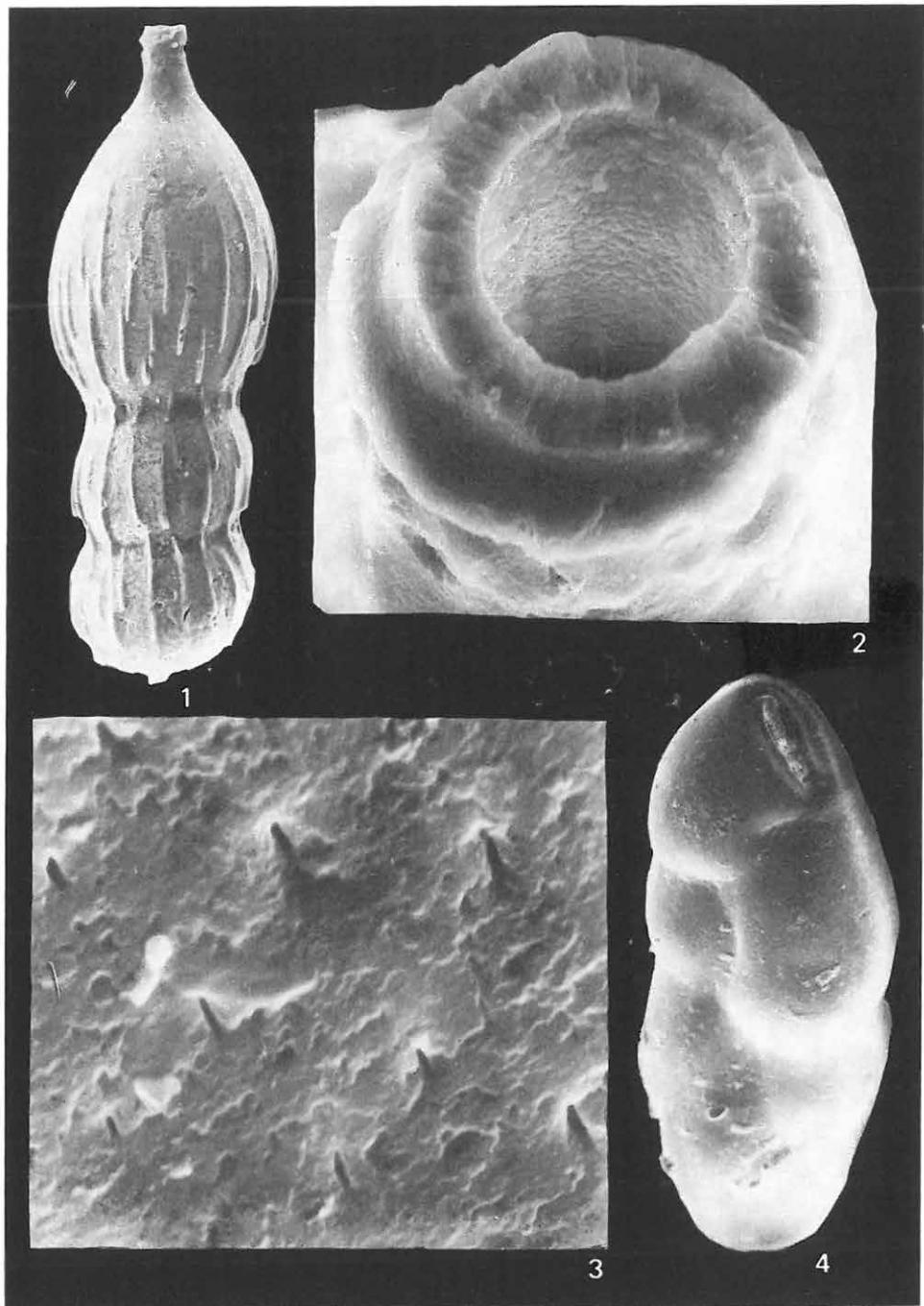
1. Totálkép — Total picture 240×
2. A nyakon elhelyezkedő nyílás — Aperture on the neck 2600×

Praeglobobulimina pupoides (D'ORBIGNY)

Perőcsény 3. sz. f. 85,8 m

3. A ház felülete a hasítékszerű perforációkkal — Surface of the test with „splitted” perforations 10 000×
4. Totálkép — Total picture 160×

SEM



CXV. tábla — Plate CXV

Miocén

Dimorphina variabilis (NEUGEBOREN)

Nagybörzsöny 12. sz. f. 70,0 m

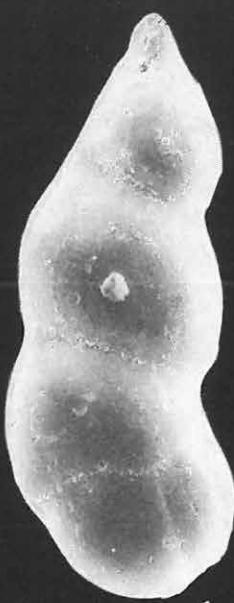
1. Totálkép — Total picture 940×
2. Perforált felszín — Perforated surface 10 000×

Lagenonodosaria sublineata (BRADY)

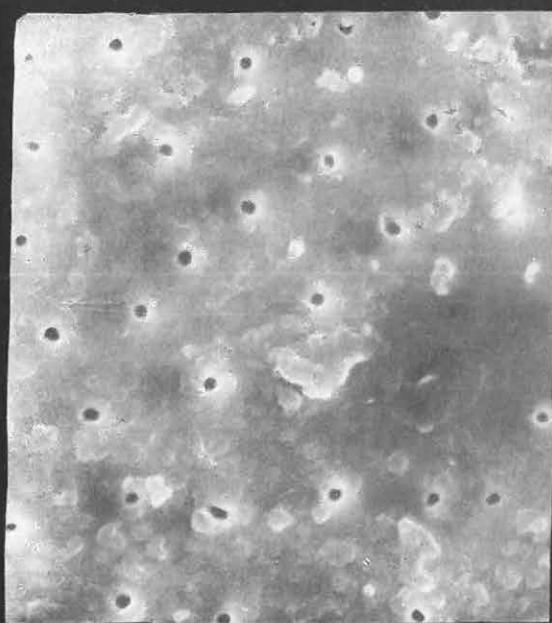
Nagybörzsöny 12. sz. f. 70,0 m

3. Perforált felszín — Perforated surface 4000×
4. Totálkép — Total picture 150×

SEM



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CXVI. tábla — Plate CXVI

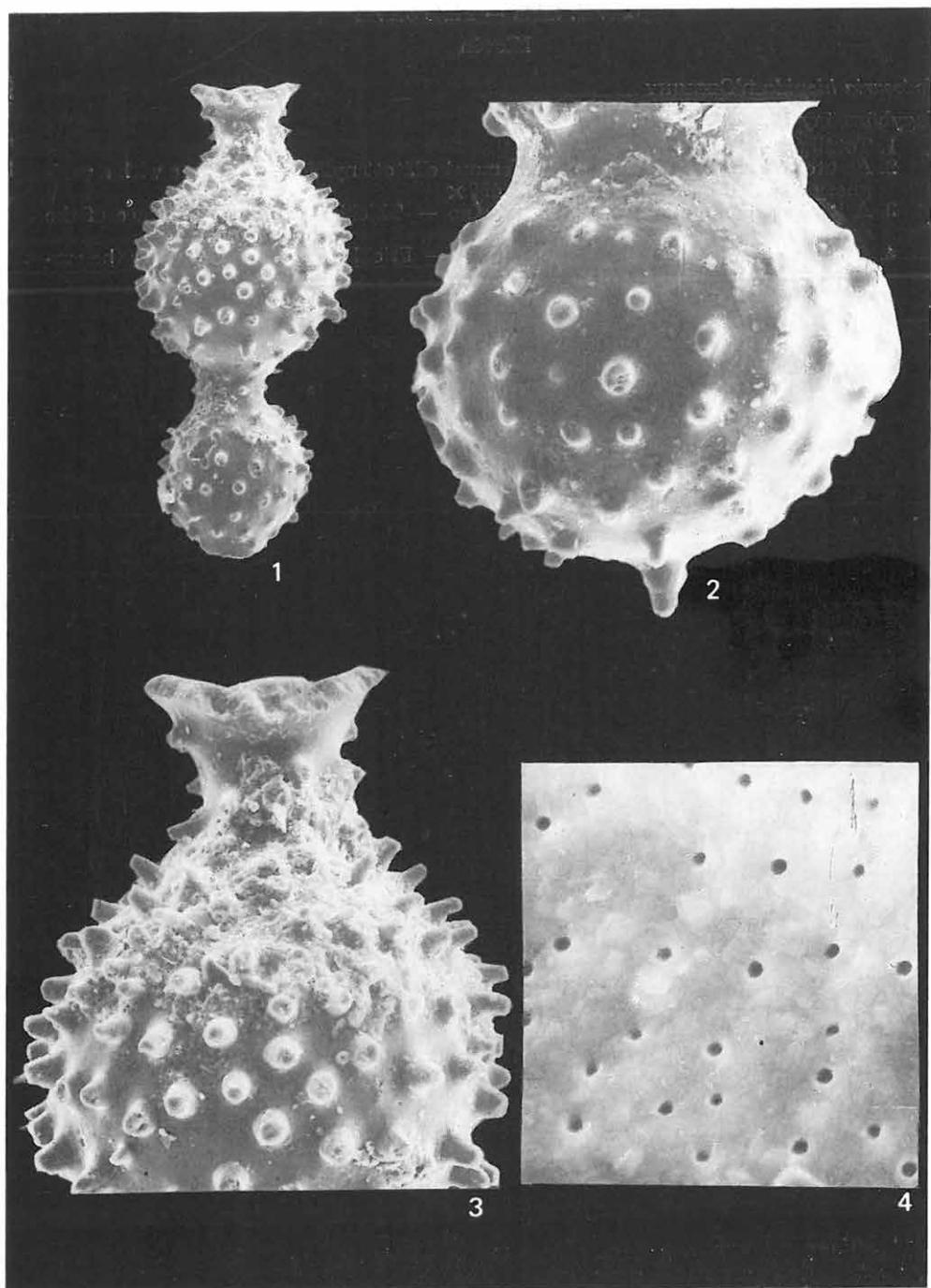
Miocén

Nodosaria aculeata d'ORBIGNY

Szokolya 2. sz. f. 78,3—79,1 m

1. Totálkép — Total picture $120\times$
2. A kezdőkamra tüskékkal díszített — Surface of the early chamber, with prickled ornaments $400\times$
3. Az utolsó kamra a nyílással; jól látható a tüskék végén levő perforáció — Last chamber with the aperture. Perforation at the end of the prickles observable $260\times$
4. Az egész ház felületét borító perforáció — Perforations covering the surface of the test $10\,000\times$

SEM



CXVII. tábla — Plate CXVII

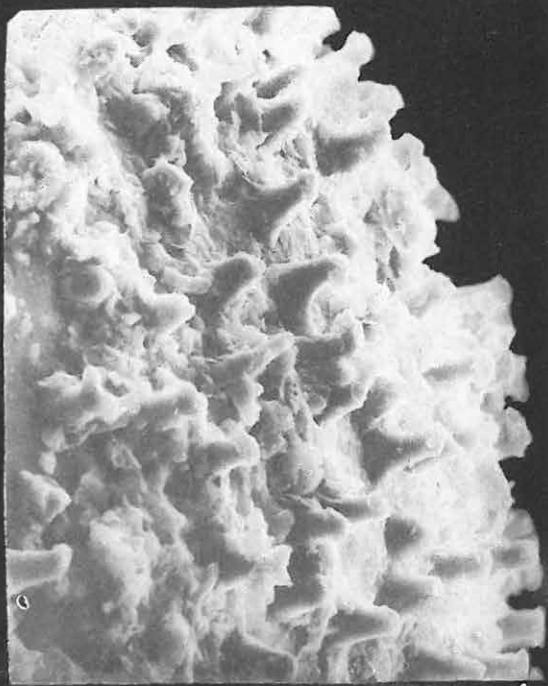
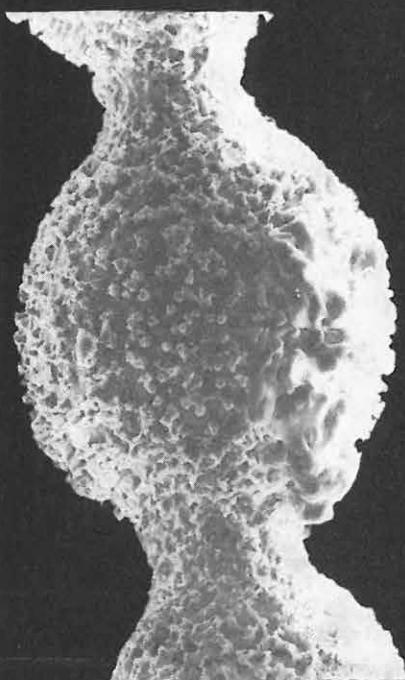
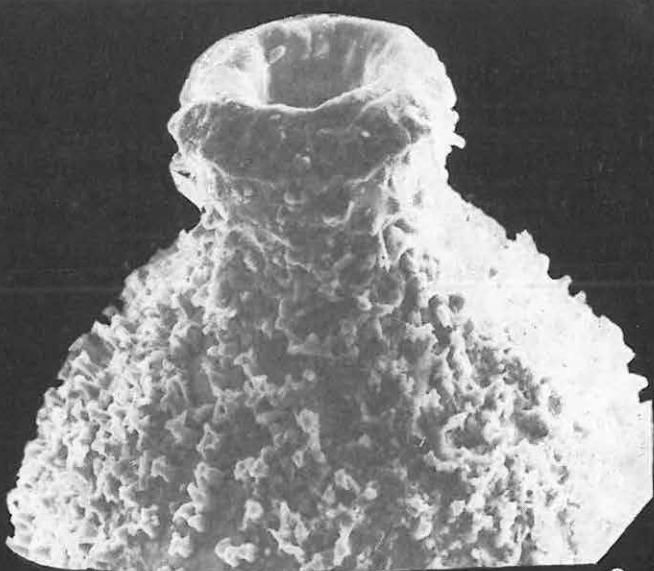
Miocén

Nodosaria hispida d'ORBIGNY

Nagybörzsöny 12. sz. f. 82,0 m

1. Totálkép — Total picture $78\times$
2. Az utolsó kamrában elhelyezkedő, peremmel ellátott nyílás — Aperture with a periphery situated on the last chamber $400\times$
3. A középső kamra sűrűn díszített felszíne — Thickly ornamented surface of the central chamber $220\times$
4. A kamrák felületét borító tüskés díszítés — Prickled ornament covering the surface of the chambers $1000\times$

SEMs



CXVIII. tábla — Plate CXVIII

Miocén

Stilostomella adolphina (D'ORBIGNY)

Szokolya 2. sz. f. 37,0—37,9 m

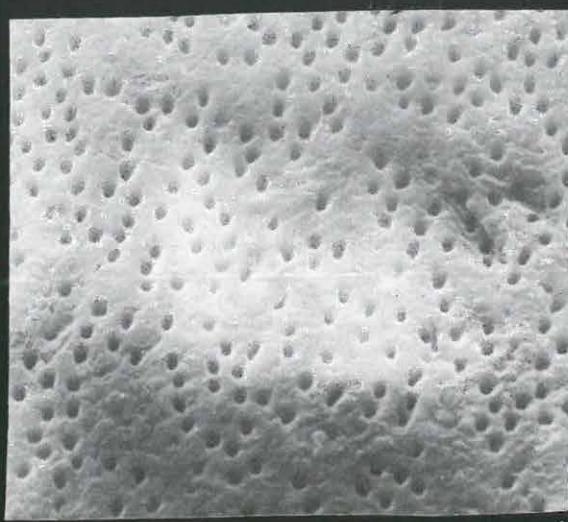
1. A ház perforált felszíne — Perforated surface of the test 1000×
2. Totálkép — Total picture 100×

Vaginulina legumen (LINNE)

Szokolya 2. sz. f. 8,2—9,6 m

3. Totálkép — Total picture 26×
4. Perforált felület — Perforated surface 10 000×

SEMs



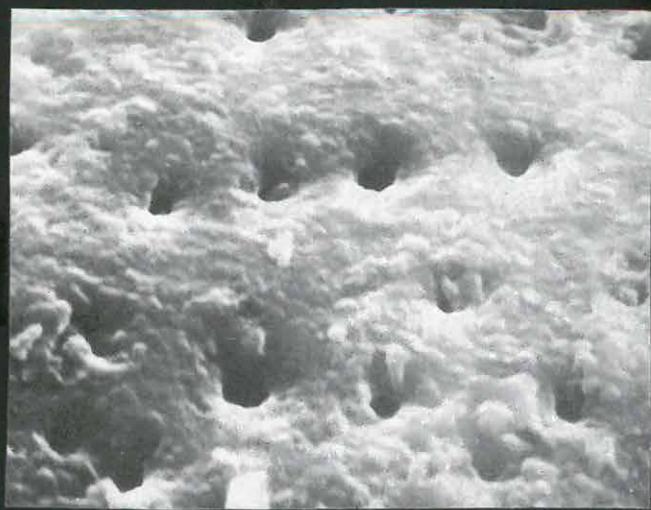
1



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CXIX. tábla — Plate CXIX

Miocén

Lagena semistriata WILLIAMSON

Szokolya 2. sz. f. 64,7—65,5 m

1. Totálkép — Total picture 300×

2. A nyakrész gyöngyös díszítése — Neck-part with pearl-like ornament 1000×

Lagena acuticosta REUSS

Szokolya 2. sz. f. 64,7—65,5 m

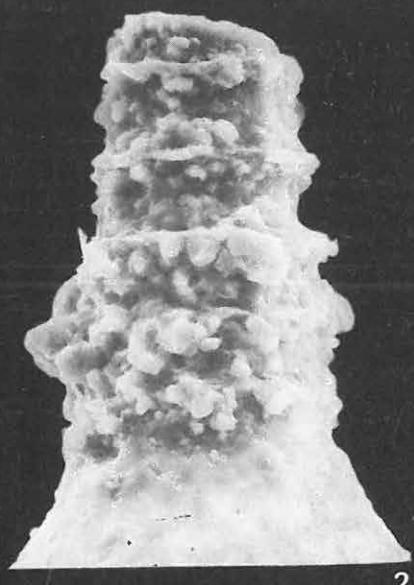
3. Sapkaszerű, díszítés nélküli végződés a megnyúlt nyakon — Cap-like ending with no ornamentation on the elongated neck 400×

4. Totálkép — Total picture 200×

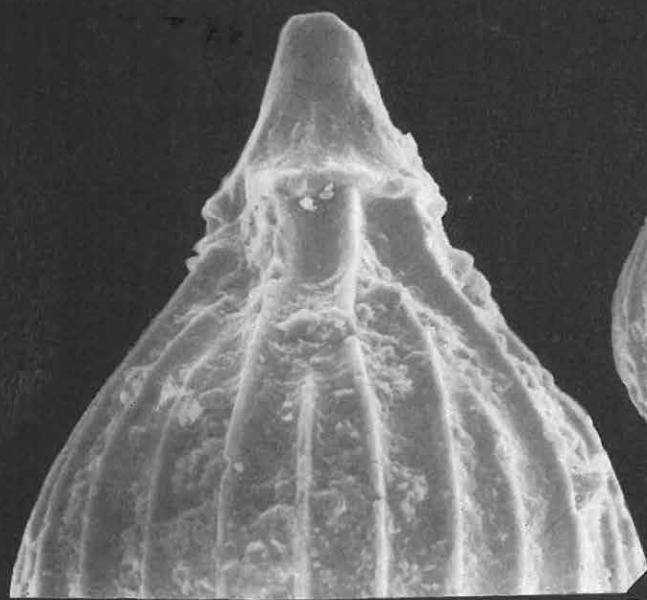
SEMs



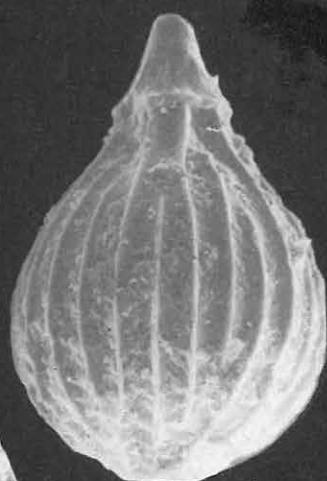
1



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4

CXX. tábla — Plate CXX

Miocén

Lagenia striata (d'ORBIGNY)

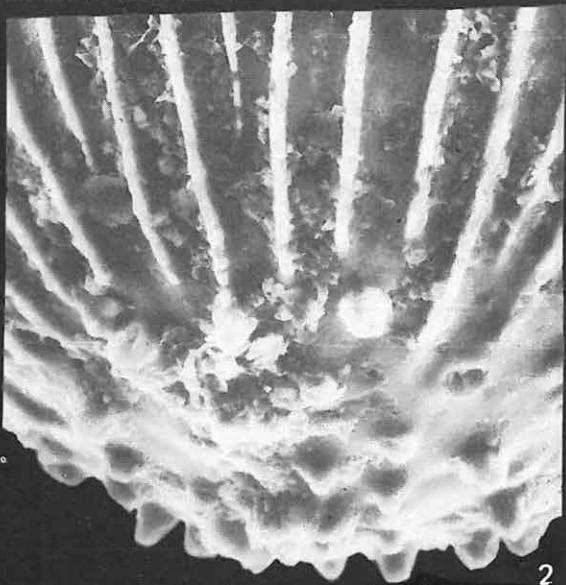
Szokolya 2. sz. f. 109,0—111,2 m

1. Totálkép — Total picture 240×
2. A kamra végén apró tüske díszítés — Tiny prickle ornament at the end of the chamber 780×
3. Ötszöges lemezekből álló nyakrész — Neck-part built up of pentagonal plates 540×
4. Kinagyított lemezek a nyakról — Plates from the neck, enlarged 4000×

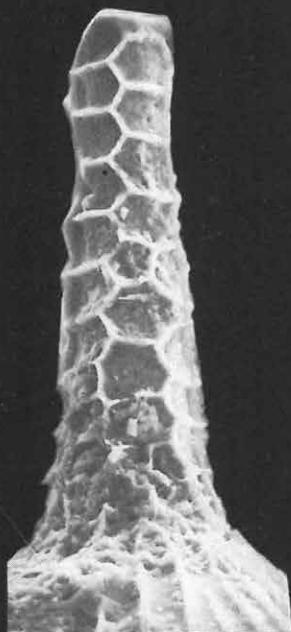
SEM-s



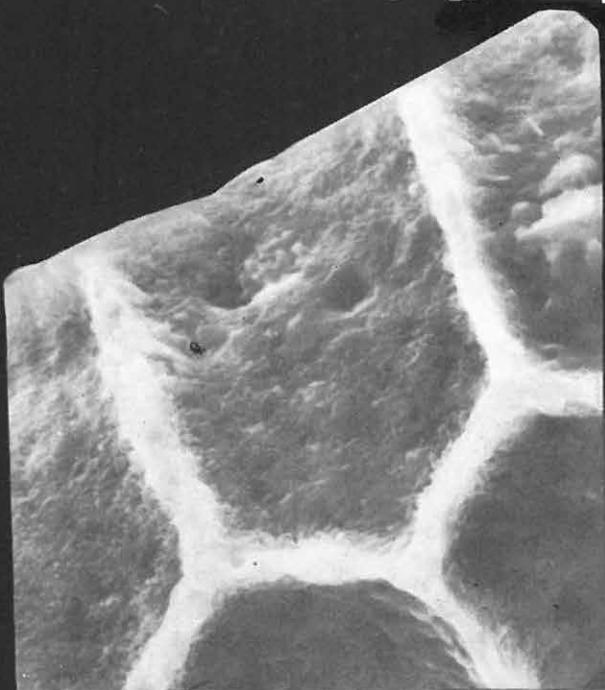
1



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CXXI. tábla — Plate CXXI

Miocén

Lagena sulcata (WALKER—JACOB)

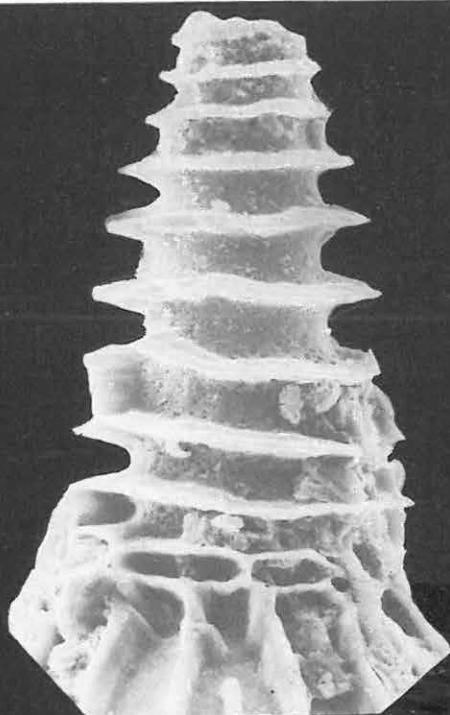
Szokolya 2. sz. f. 37,9—38,3 m

1. Totálkép — Total picture $260\times$
2. A nyakrész a nyílással és a spirális bordákkal — Neck-part with the aperture and the spiral ribs $1000\times$
3. A ház felületén látható perforáció — Perforation on the surface of the test $4000\times$
4. A nyakon elhelyezkedő nyílás — Aperture on the neck $2000\times$

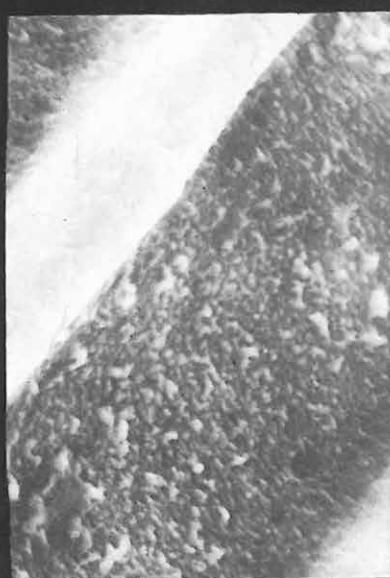
SEMs



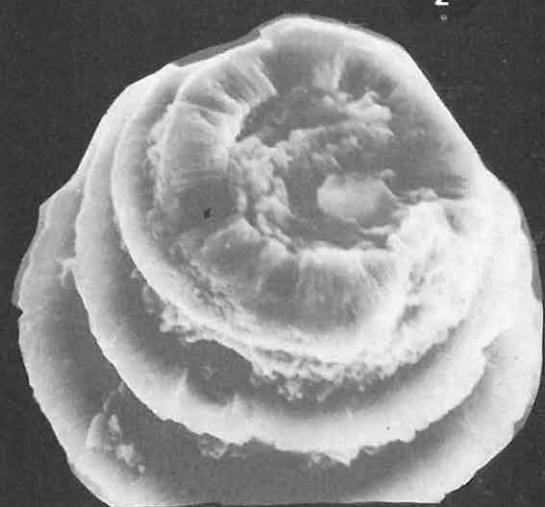
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CXXII. tábla — Plate CXXII

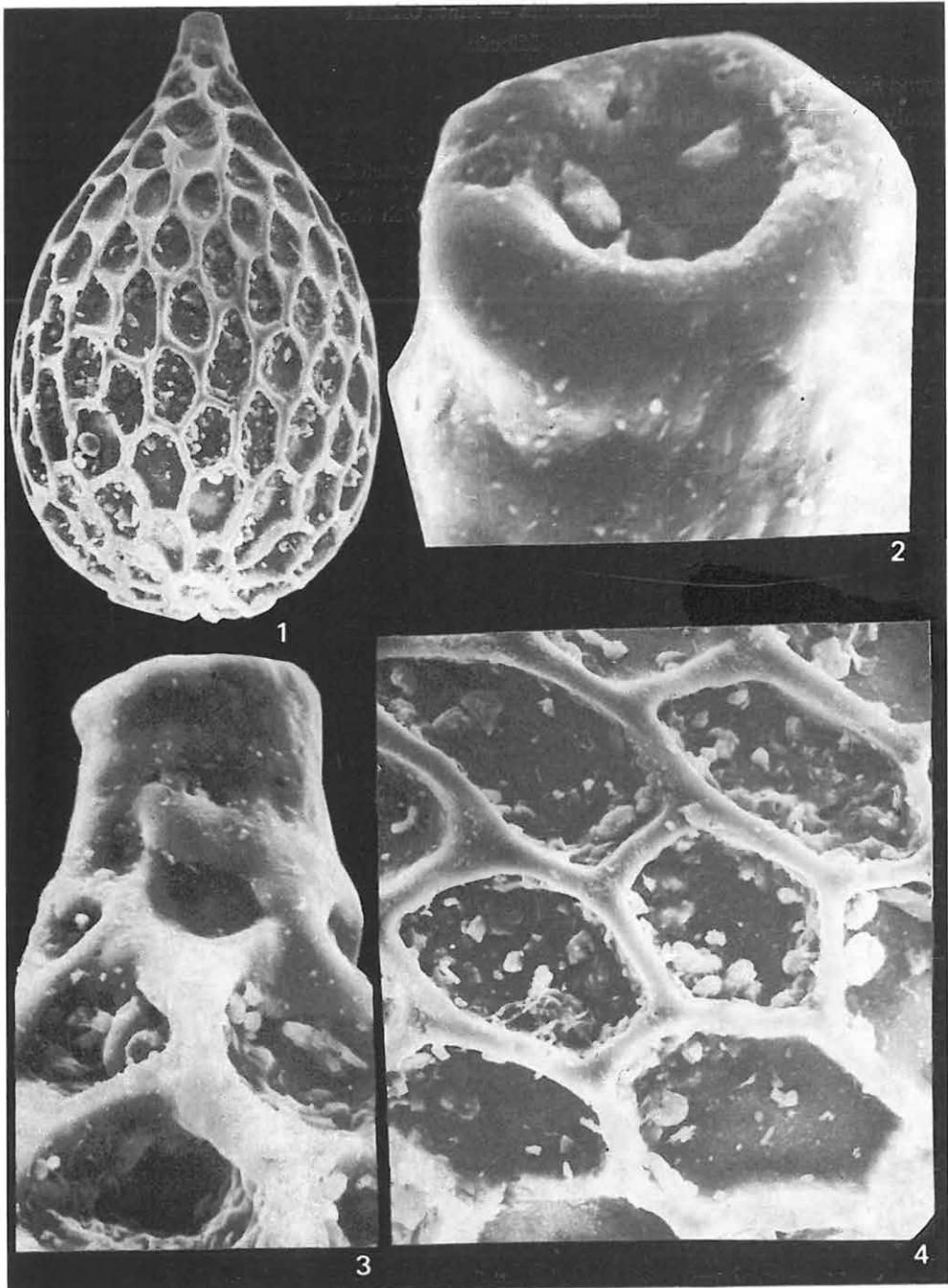
Miocén

Lagena hexagona (WILLIAMSON)

Hont 2. sz. f. 146,0—148,5 m

1. Totálkép — Total picture 300×
2. A nyakon elhelyezkedő nyílás — Aperture on the neck 3000×
3. A nyaki rész — Neck-part 1500×
4. Felület részlet — Detail of the surface 1000×

SEMs



CXXIII. tábla — Plate CXXIII

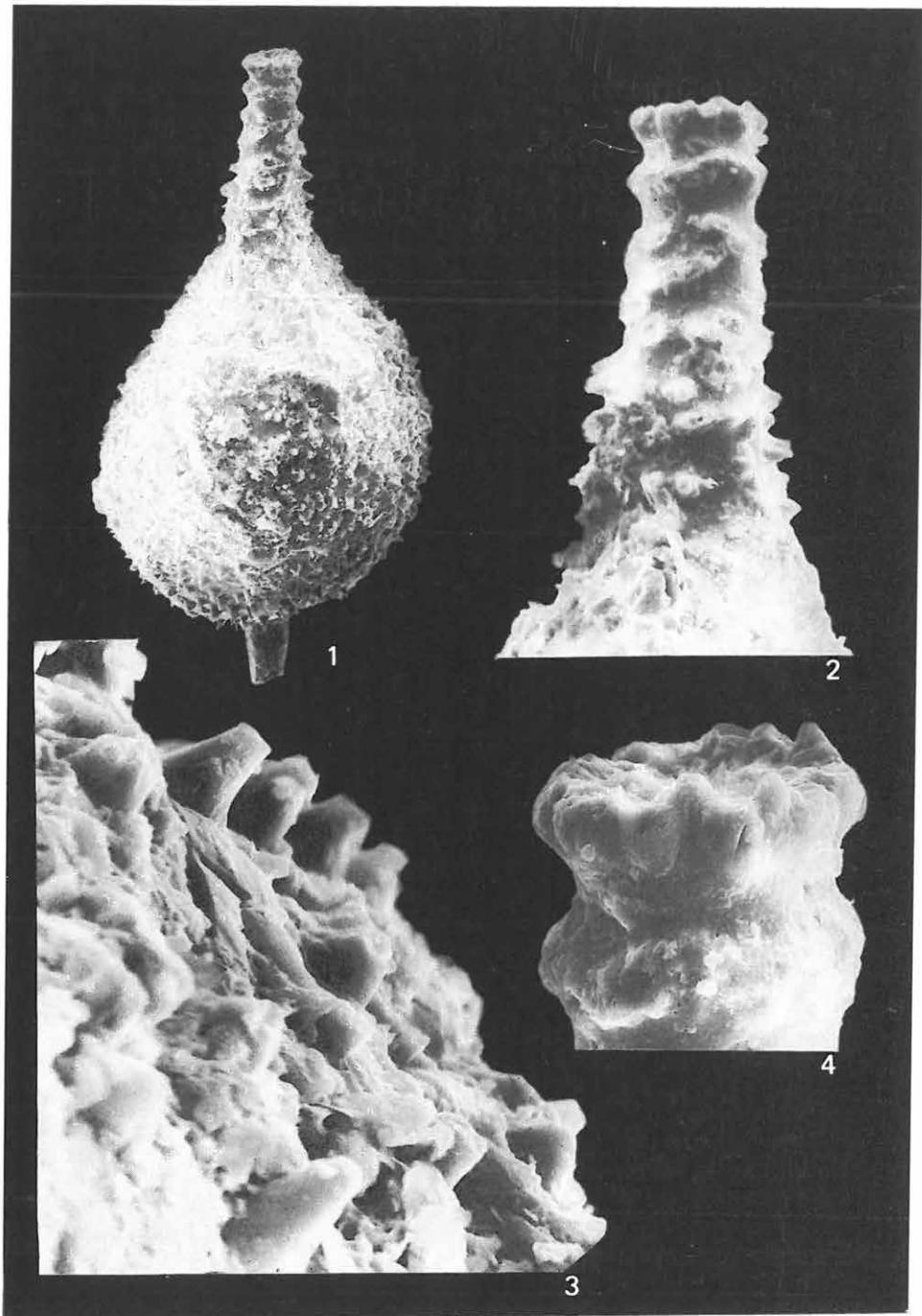
Miocén

Lagenaria hispida REUSS

Szokolya 2. sz. f. 42,3—43,1 m

1. Totálkép — Total picture 180×
2. A díszített nyakrész — The ornamented neck-part 400×
3. A felület tüskés díszítése — Prickled ornamentation of the surface 2400×
4. A nyak vége a nyílással — End of the neck with the aperture 1000×

SEMs



CXXIV. tábla — Plate CXXIV

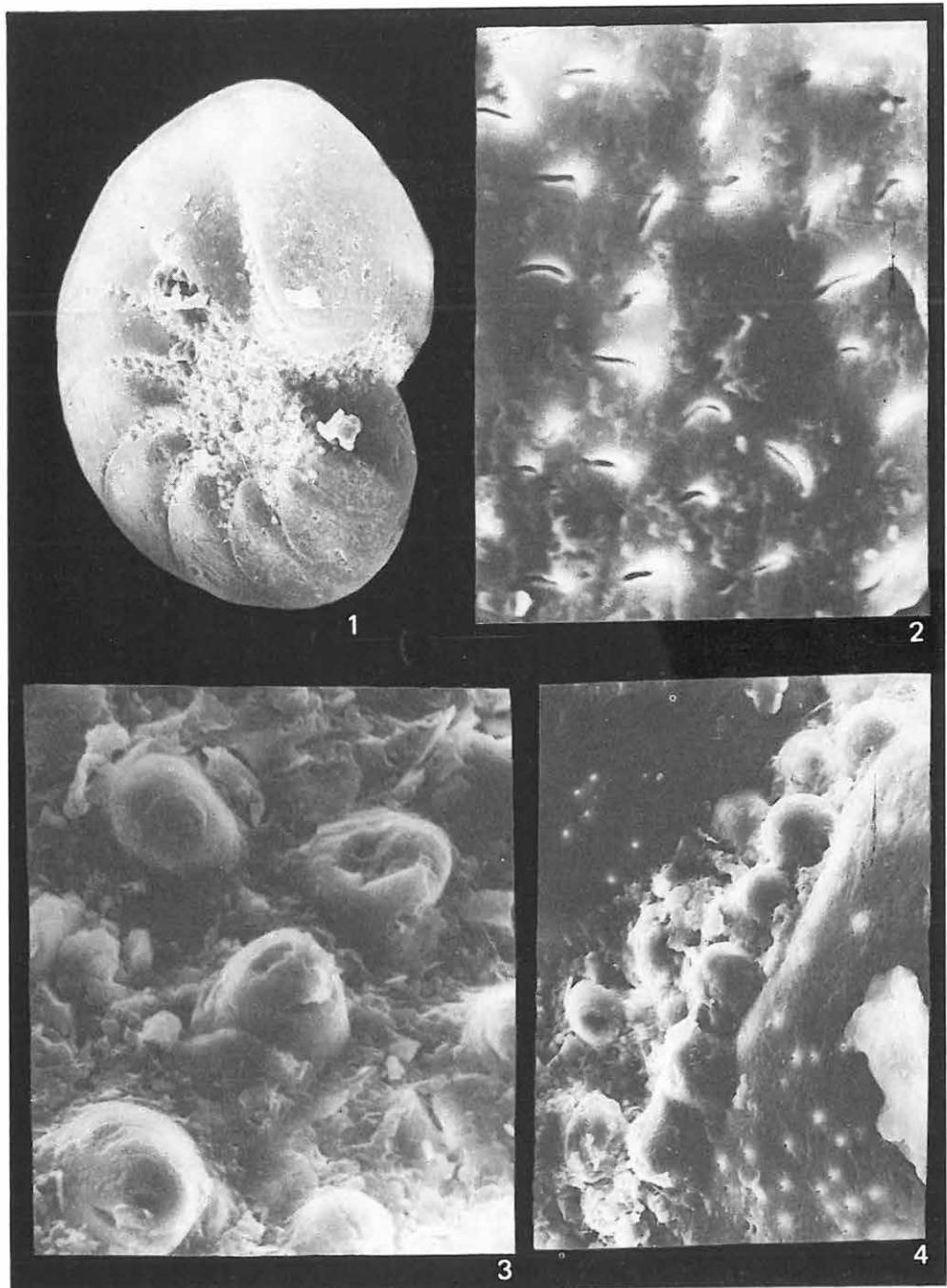
Miocén

Florilus tuberculatus (D'ORBIGNY)

Hont 2. sz. f. 148,5—152,0 m

1. Totálkép — Total picture 150×
2. A felület hasíték-perforációi — The „slotted” perforations of the surface 5400×
3. A középső rész díszítése — Ornamentation of the central part 2000×
4. A kamraválaszvonalaknál levő díszítés — Ornamentation of the suturae 1000×

SEM-s



CXXV. tábla — Plate CXXV

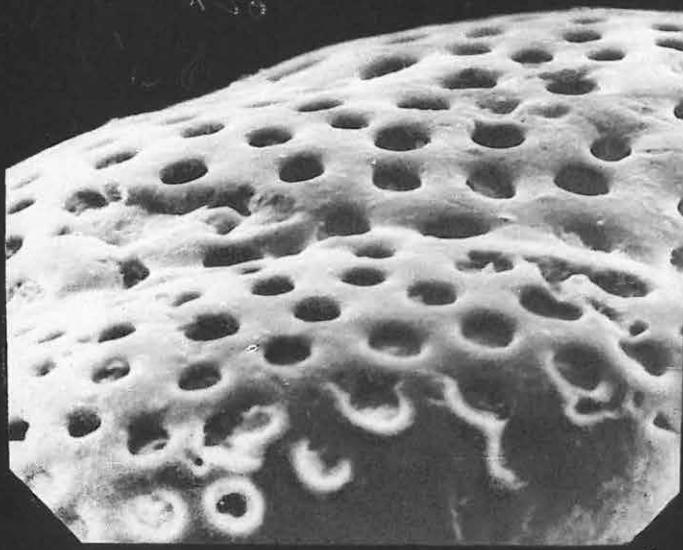
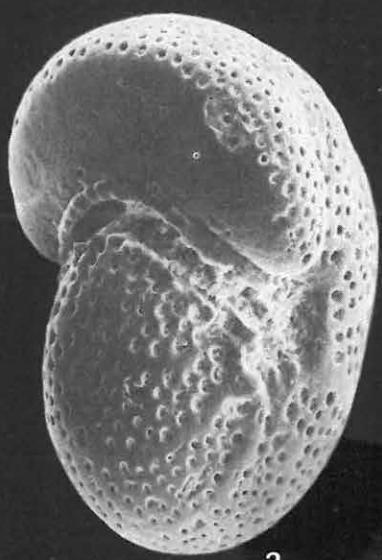
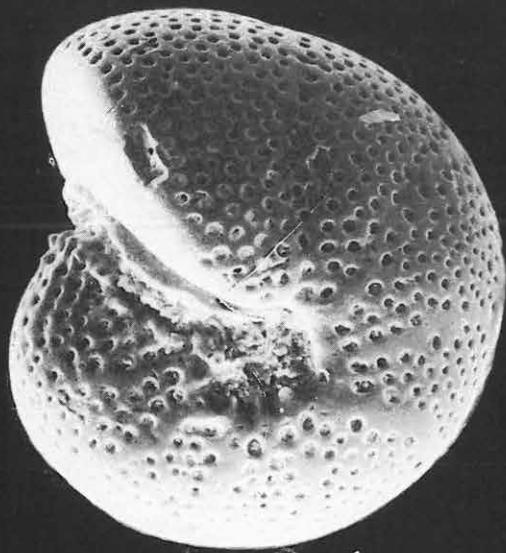
Miocén

Melonis soldanii (D'ORBIGNY)

Hont 2. sz. f. 148,5—152,0 m

1. Totálkép — Total picture 240×
2. A nyílás felőli nézet — View from the aperture 220×
3. A perforált felszín — Perforated surface 1000×

SEMs



3

CXXVI. tábla — Plate CXXVI

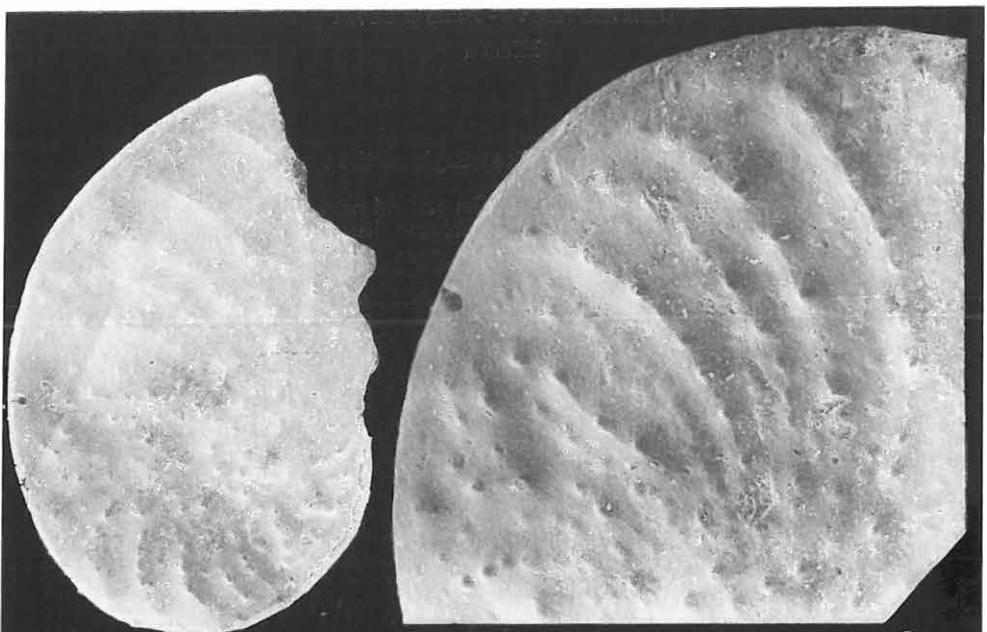
Miocén

Heterostegina costata d'ORBIGNY

Szokolya 2. sz. f. 91,0—93,0 m

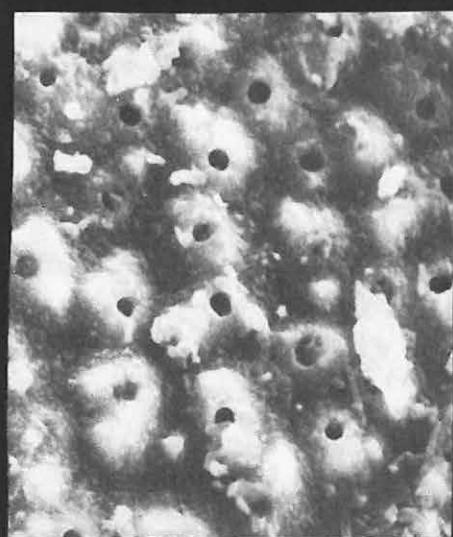
1. Totálkép — Total picture 20×
2. Kinagyított kamrák — Chambers enlarged 40×
3. A felületet borító díszítés és perforáció — Ornamentation and perforation covering the surface 3000×
4. A felületet borító díszítés és perforáció — Ornamentation and perforation covering the surface 6000×

SEMs



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CXXVII. tábla — Plate CXXVII

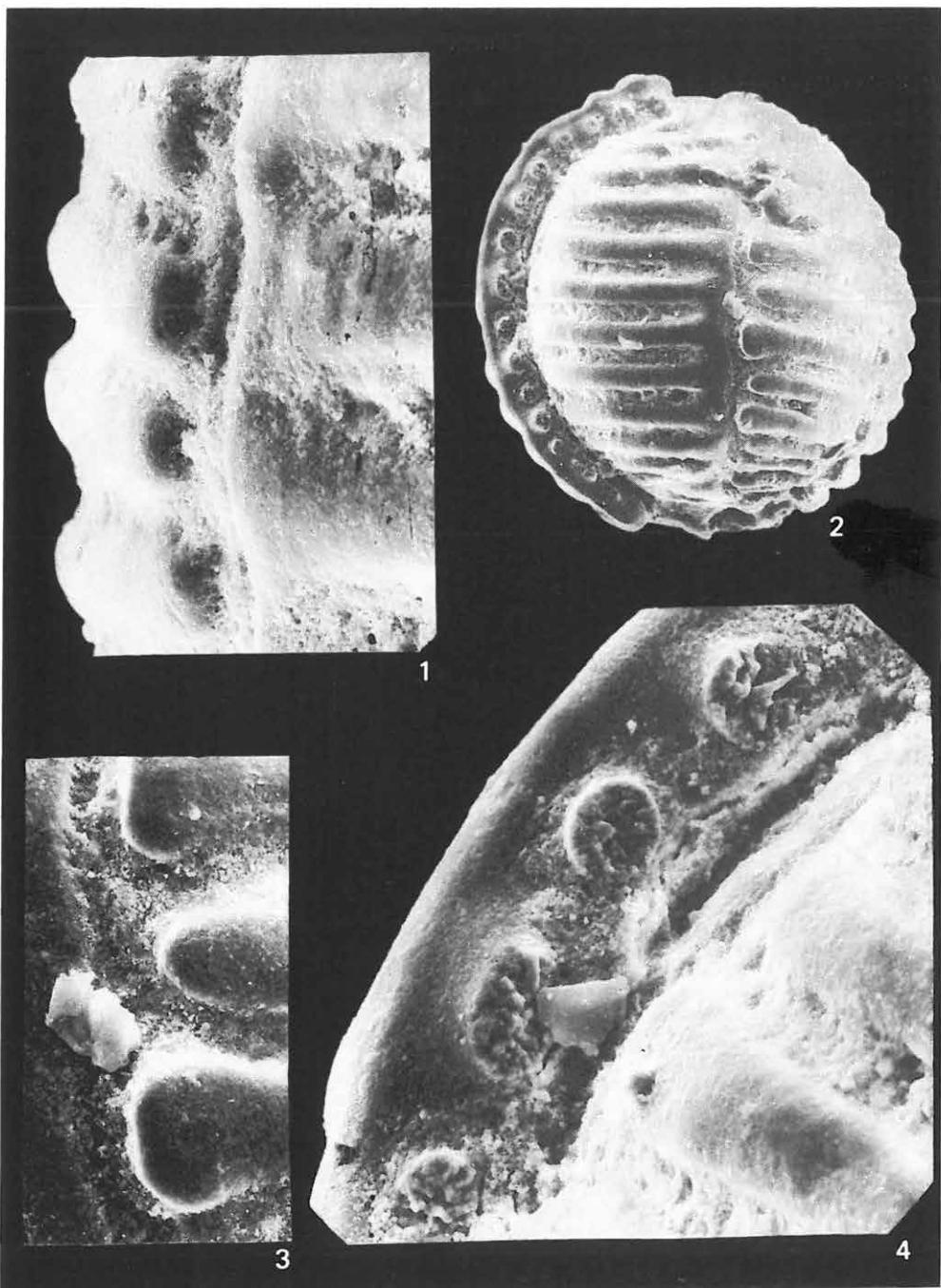
Miocén

Borelis melo (FICHTEL—MOLL)

Szokolya 2. sz. f. 104,7—106,4 m

1. Részlet a ház széléről — Detail of the margin of the test 600×
2. Totálkép — Total picture 130×
3. Részlet a középső részről — Detail of the central part 480×
4. A peremén elhelyezkedő nyílások — Apertures situated on the periphery 600×

SEMs



CXXVIII. tábla — Plate CXXVIII

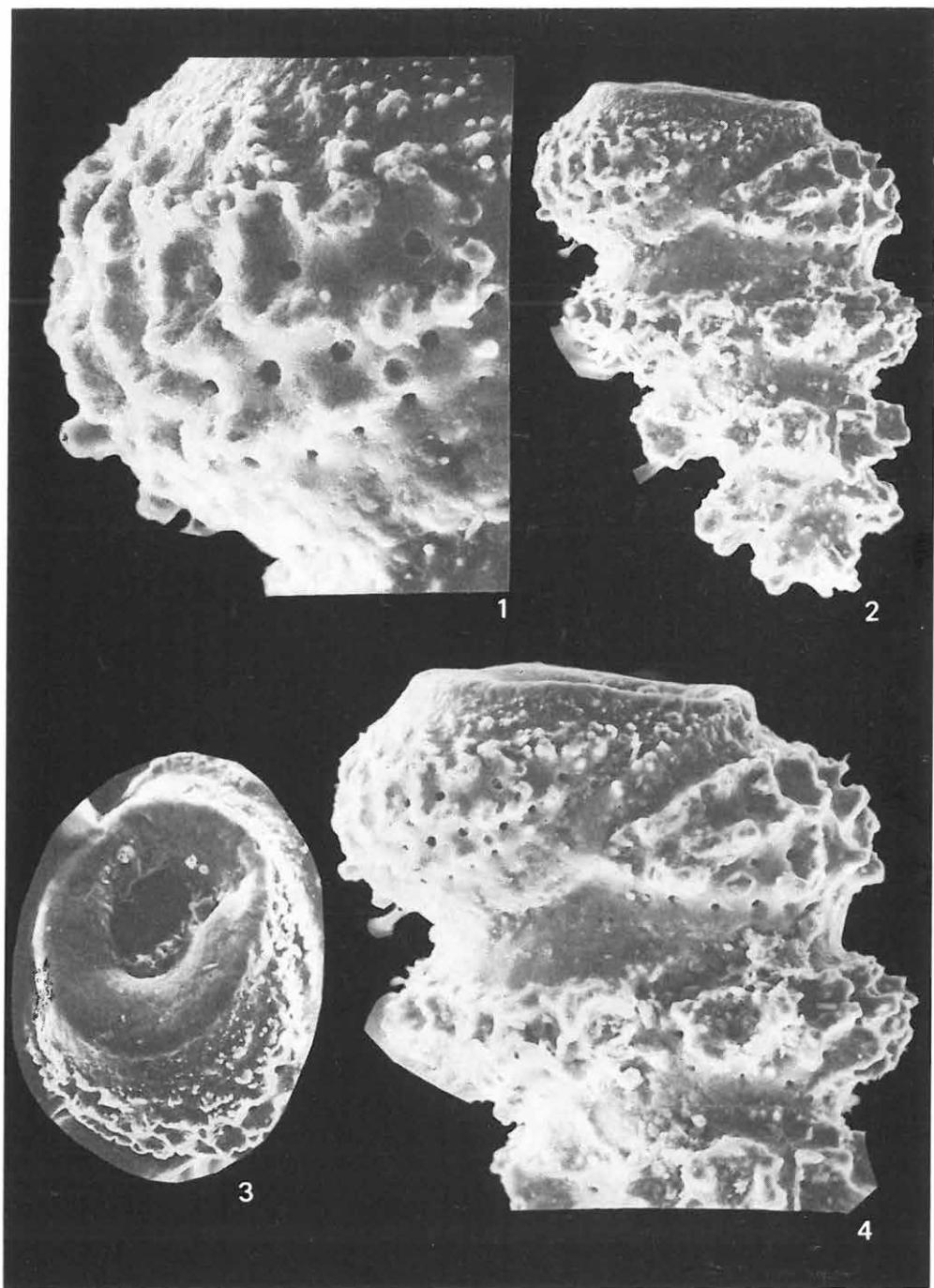
Miocén

Bulimina dingdenensis BATJES

Perőcsény 3. sz. f. 60,0 m

1. Felület a perforációval — Surface with the perforations 1000×
2. Totálkép — Total picture 300×
3. A nyílás — The aperture 400×
4. A kamrák tüskés díszítése — Prickled ornamentation of the chambers 440×

SEM-s



CXXIX. tábla — Plate CXXIX

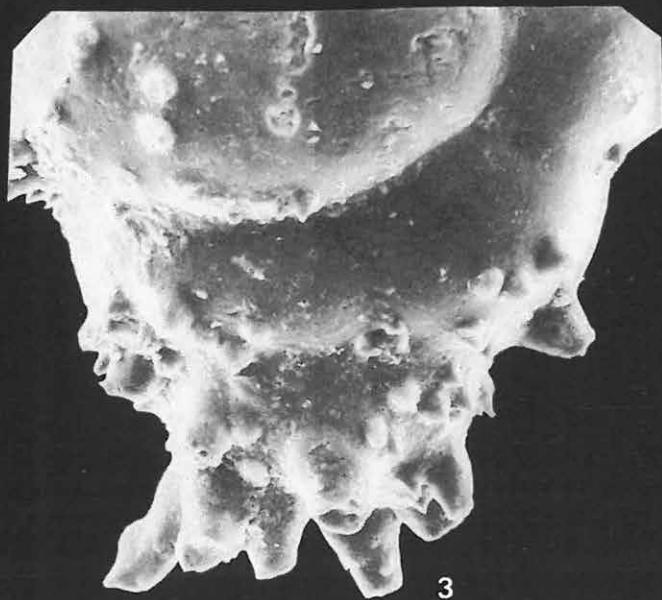
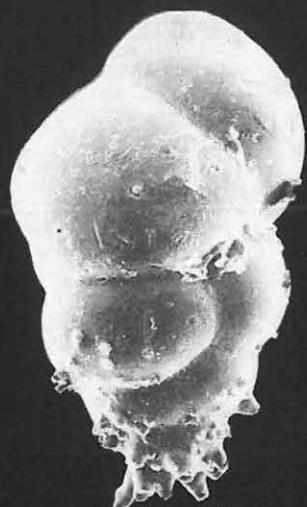
Miocén

Bulimina aculeata d'ORBIGNY

Hont 1. sz. f. 77,7—80,0 m

1. Totálkép — Total picture 100×
2. Perforált felület — Perforated surface 6000×
3. A kezdőkamra tüskés díszítése — Prickled ornamentation of the early chamber
300×

SEM^s



CXXX. tábla — Plate CXXX

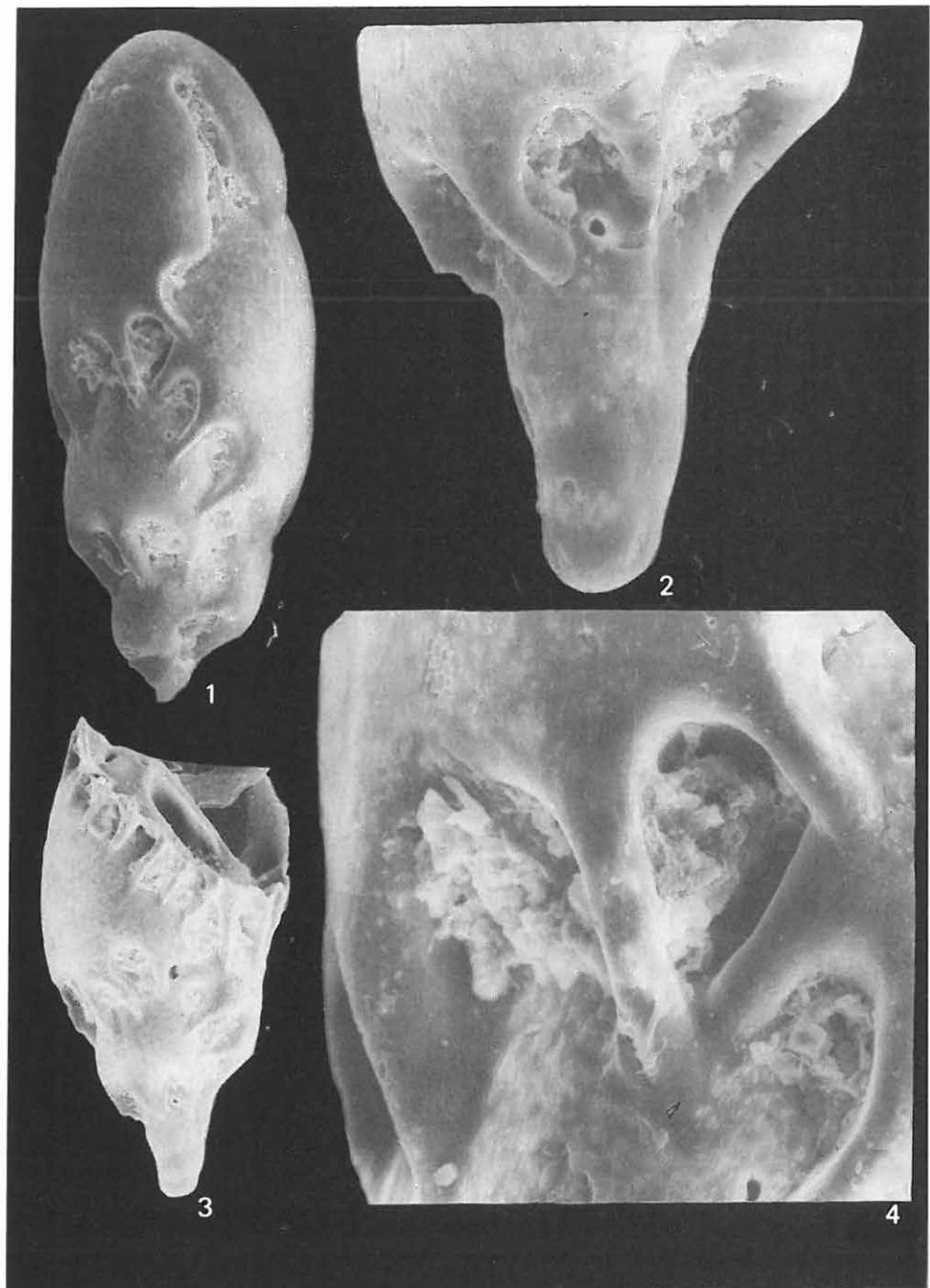
Miocén

Virgulinella miocenica (CUSHMAN—PONTON)

Hont 2. sz. f. 136,0—136,7 m

1. Totálkép — Total picture 200×
2. Kezdő kamra (másik példány) — Early chamber (another specimen) 600×
3. Totálkép a sérült másik példányról — Total picture of the broken other specimen 180×
4. Részlet a felületről — Detail of the surface 780×

SEM



CXXXI. tábla — Plate CXXXI

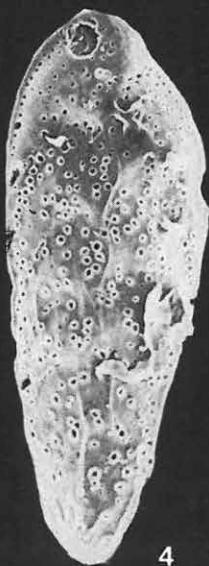
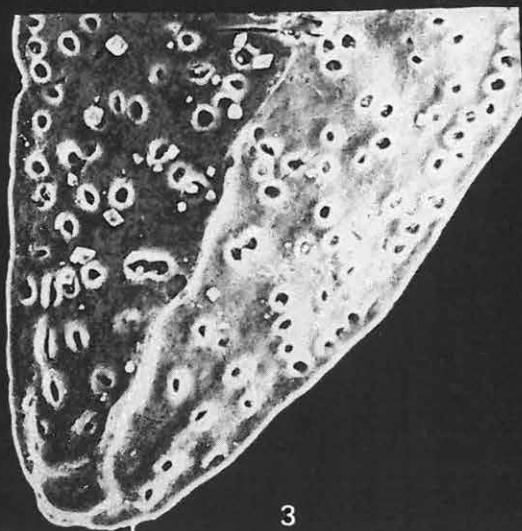
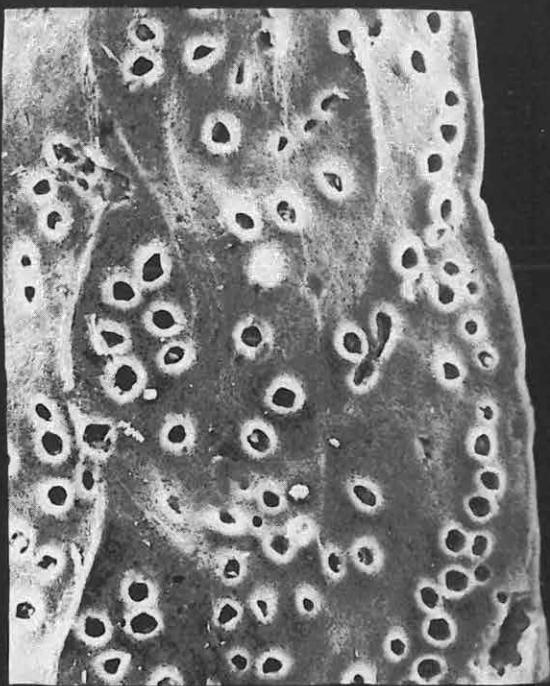
Miocén

Bolivina scalprata retiformis CUSHMAN

Hont 2. sz. f. 136,0—136,7 m

1. Totálkép — Total picture 180×
2. Részlet a ház széléről a perforációval — Detail of the margin of the test with perforation 600×
3. A ház kezdeti része — Early part of the test 400×
4. Totálkép elfordított helyzetben — Total picture in turned position 180×

SEM-s



CXXXII. tábla — Plate CXXXII

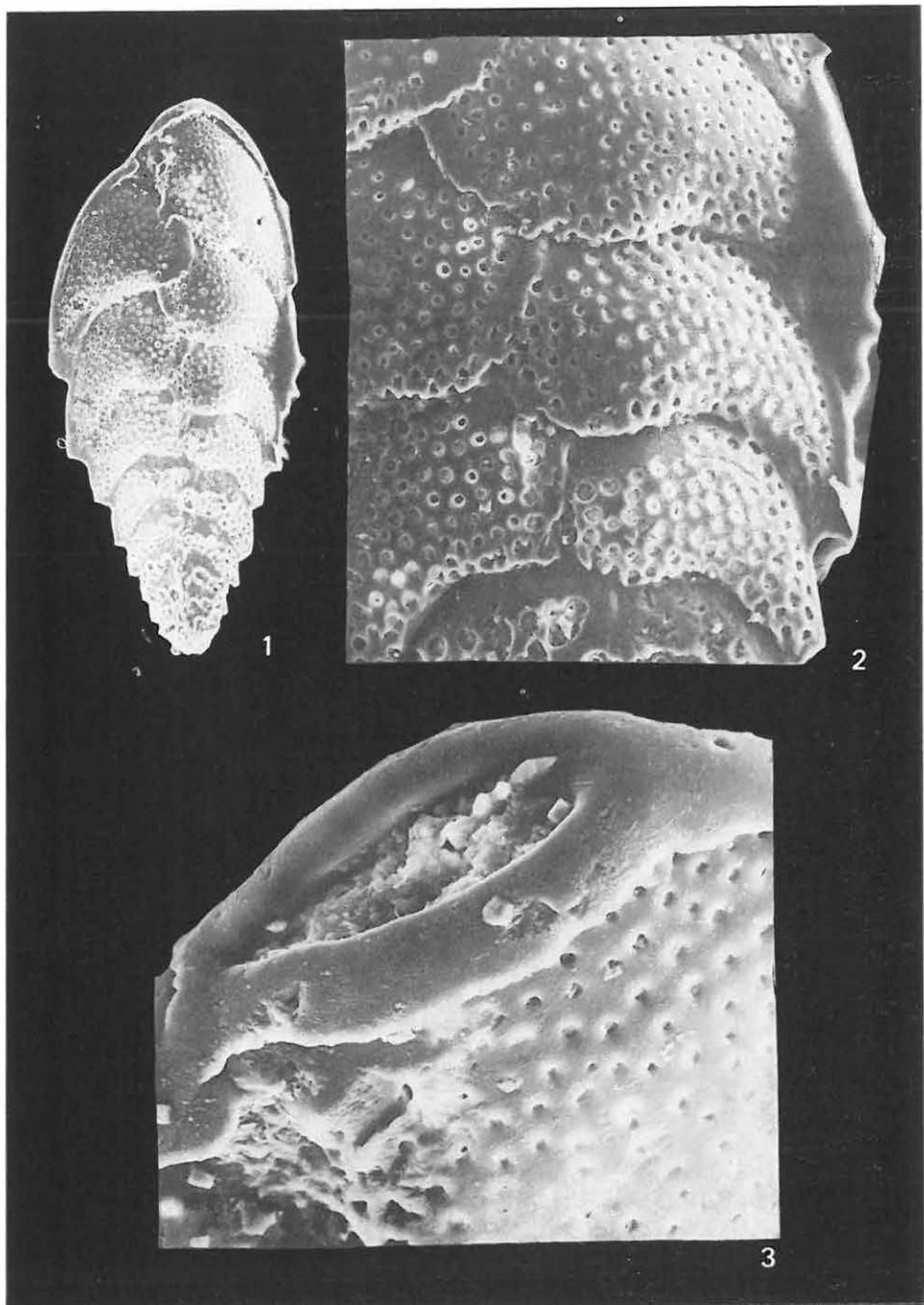
Miocén

Bolivina alata (SEGUENZA)

Hont 2. sz. f. 137,2—141,0 m

1. Totálkép — Total picture 180 \times 2. Részlet a ház perforált felszínéről — Detail of the perforated surface of the test
400 \times 3. Peremmel ellátott nyílás — The aperture with a periphery 860 \times

SEM-s



CXXXIII. tábla — Plate CXXXIII

Miocén

Bolivina alata (SEGUENZA)

Hont 2. sz. f. 137,2—141,0 m

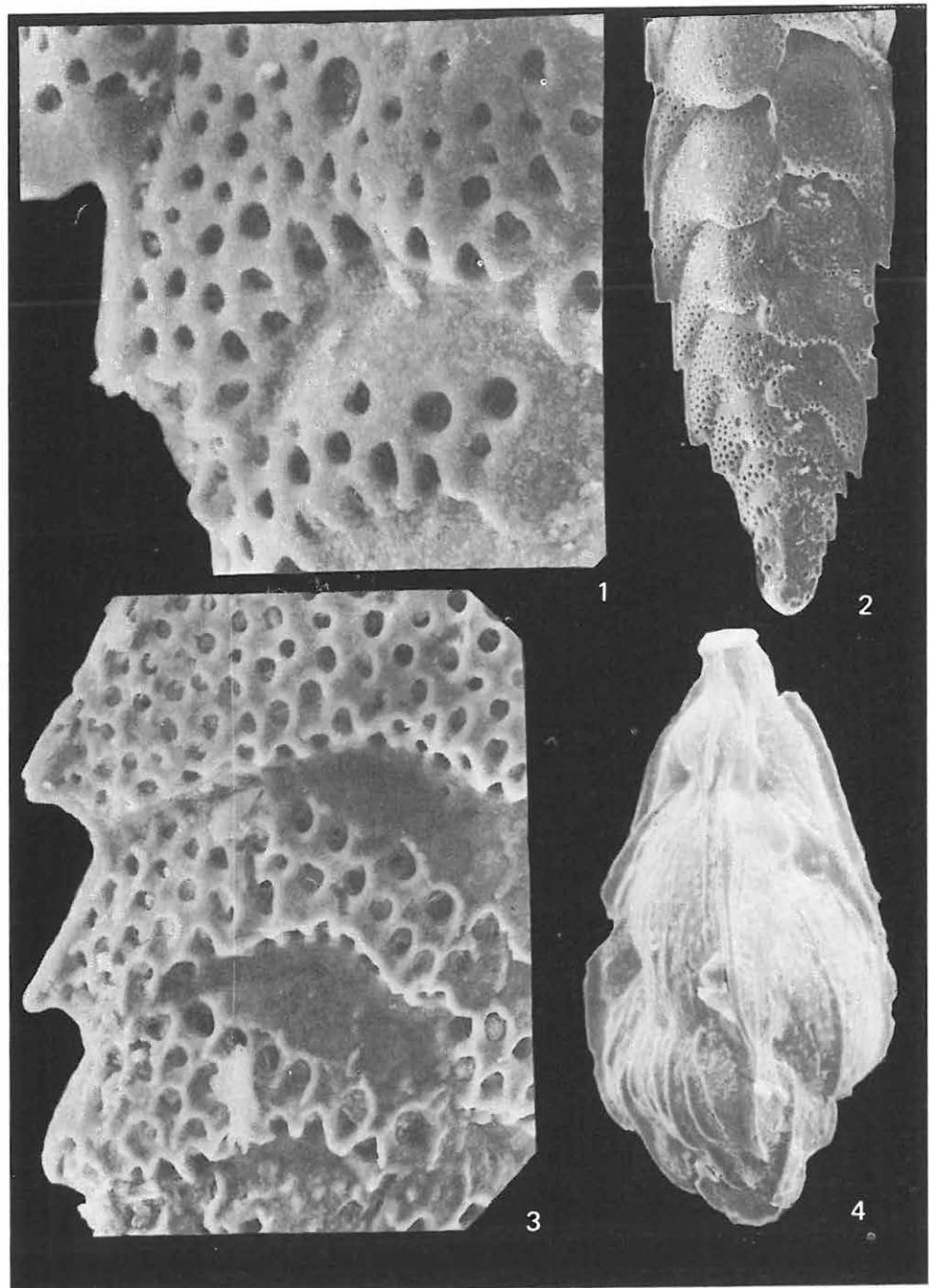
1. Részlet a perforált felszínről — Detail of the perforated surface 1000×
2. Totálkép — Total picture 150×
3. A kezdeti rész perforált felszíne — Perforated surface of the early part 720×

Trifarina angulosa (WILLIAMSON)

Perőcsény 3. sz. f. 98,0—100,0 m

4. Totálkép — Total picture 240×

SEM



CXXXIV. tábla — Plate CXXXIV

Miocén

Bolivina dilatata REUSS

Perőcsény 3. sz. f. 60,0 m

1. Perforált felszín — Perforated surface 400×

2. Totálkép — Total picture 130×

3. A széles peremmel ellátott nyílás — Aperture with a wide periphery 600×

SEMs



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CXXXV. tábla — Plate CXXXV

Miocén

Bolivina viennensis MARKS

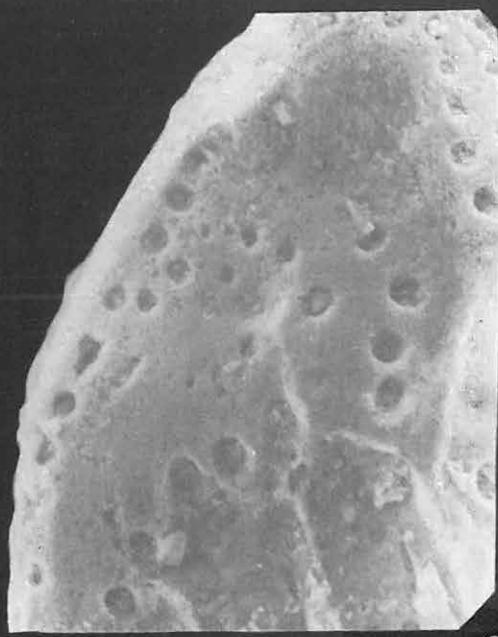
Szokolya 2. sz. f. 26,2—27,2 m

1. Totálkép — Total picture 180×
2. Perforált felszín — Perforated surface 600×
3. A kezdeti rész díszítettsége — Ornamentation of the early part 600×

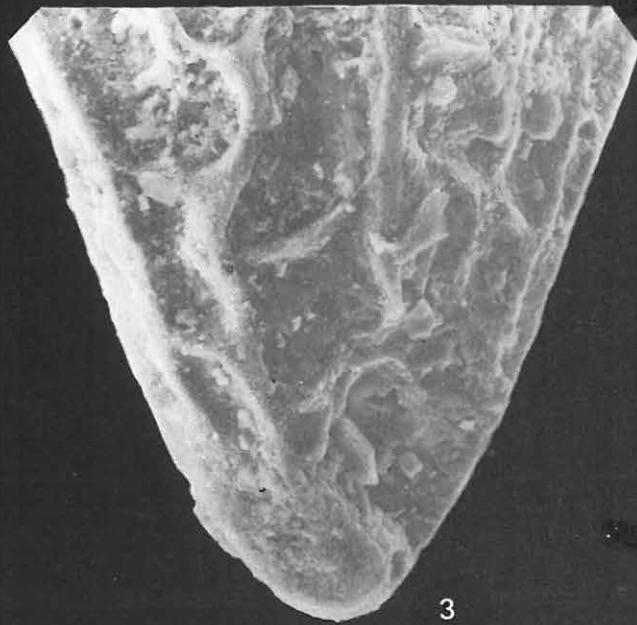
SEM-s



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CXXXVI. tábla — Plate CXXXVI

Miocén

Bolivina cancellata BERMUDEZ

Szob 2. sz. f. 258,0—260,0 m

1. Totálkép — Total picture 200×

2. A kezdeti rész díszítettsége — Ornamentation of the early part 540×

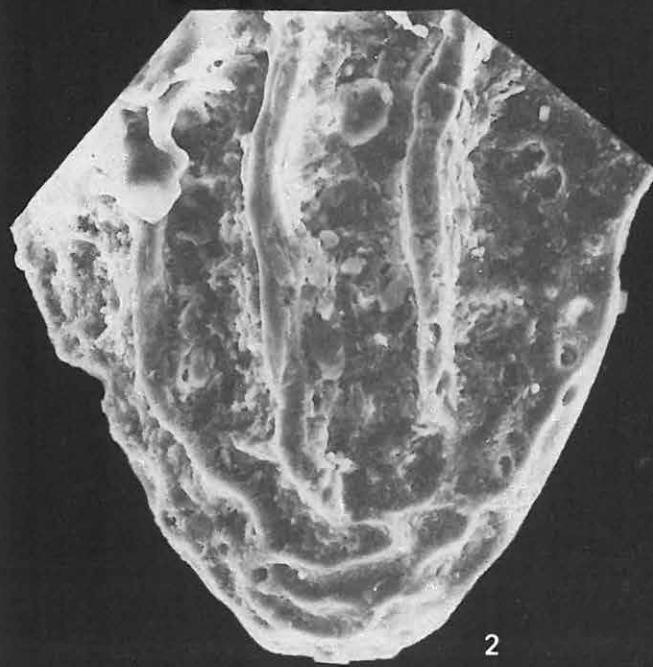
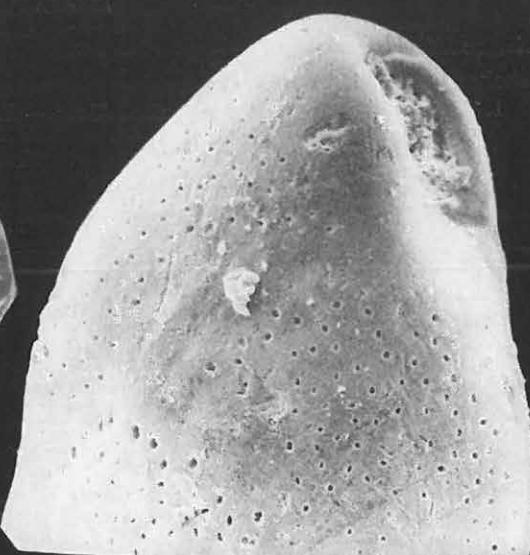
Bolivina antiqua d'ORBIGNY

Szob 2. sz. f. 258,0—260,0 m

3. Perforált felület a nyílással — Perforated surface with the aperture 300×

4. Totálkép — Total picture 150×

SEM-s



CXXXVII. tábla — Plate CX XXVII

Miocén

Bolivina hebes MACFADYEN

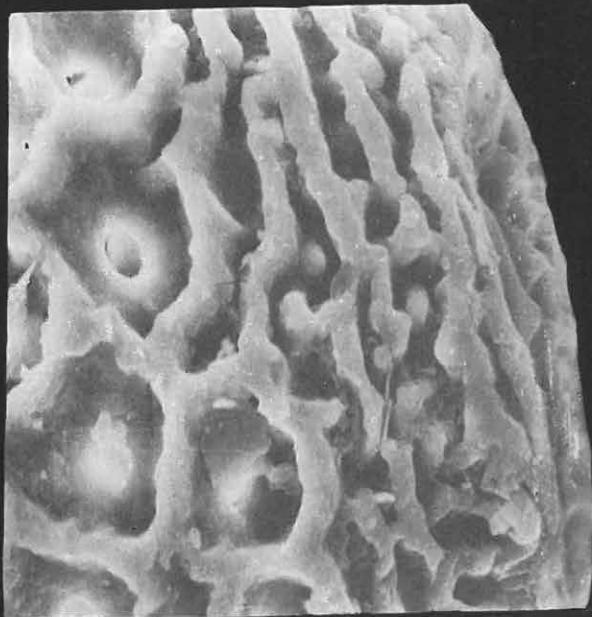
Szokolya 2. sz. f. 33,5—34,7 m

1. Rácsos díszítésű felület a perforációval — Latticed ornamentation on the surface with perforations 1500×
2. A ház szélén levő díszítés — Ornamentation on the margin of the test 2000×
3. Totálkép — Total picture 200×

SEM-s



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CXXXVIII. tábla — Plate CXXXVIII

Miocén

Bolivina plicatella CUSHMAN

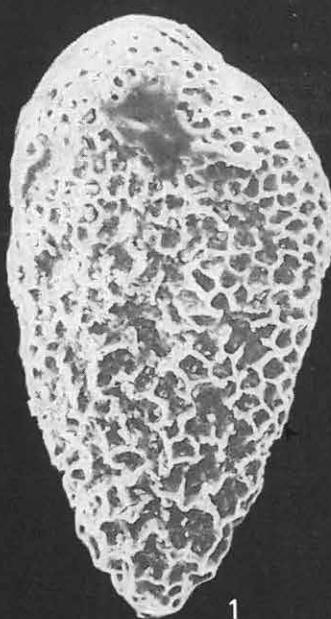
Drégelypalánk 2, sz. f. 250,0—252,0 m

1. Totálkép — Total picture 260×

2. Hálózatos felületi díszítés — Latticed ornamentation of the surface 1500×

3. Peremmel ellátott nyílás — Aperture with a periphery 1600×

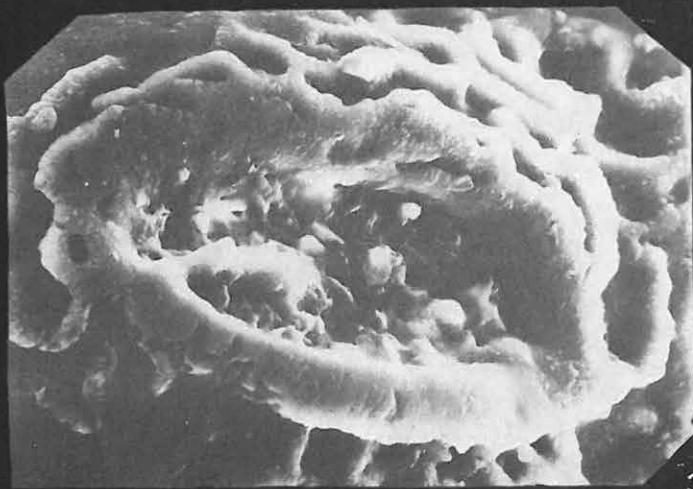
SEM-s



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CXXXIX. tábla — Plate CXXXIX

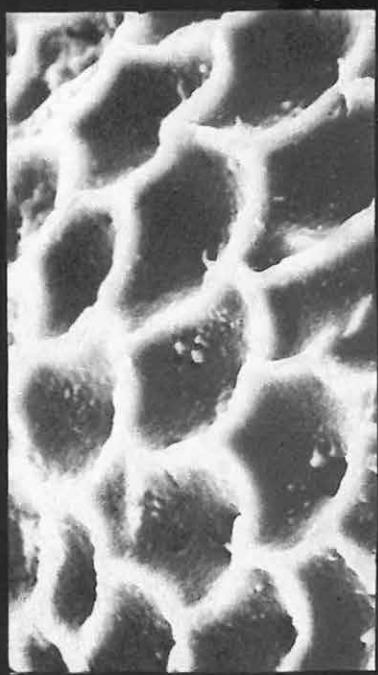
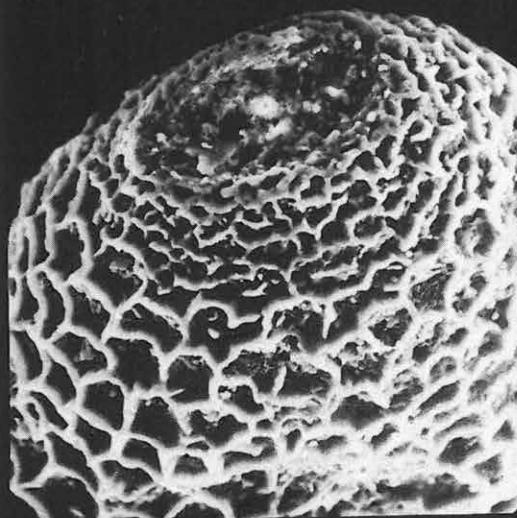
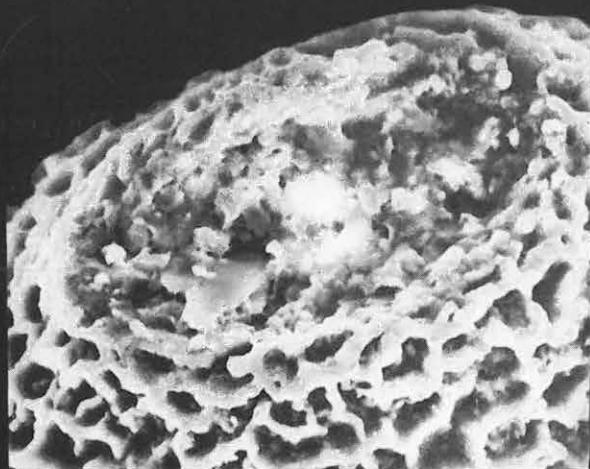
Miocén

Coryphostoma sinuosa (CUSHMAN)

Nagybörzsöny 8. sz. f. 96,0 m

1. Totálkép — Total picture 180×
2. Perem nélküli nyílás — Aperture with no periphery 1300×
3. A nyílás körüli díszítés — Ornamentation around the aperture 660×
4. A felületet borító hálózatos díszítés — Latticed ornament covering the surface 2000×

SEM-s



CXL. tábla — Plate CXL

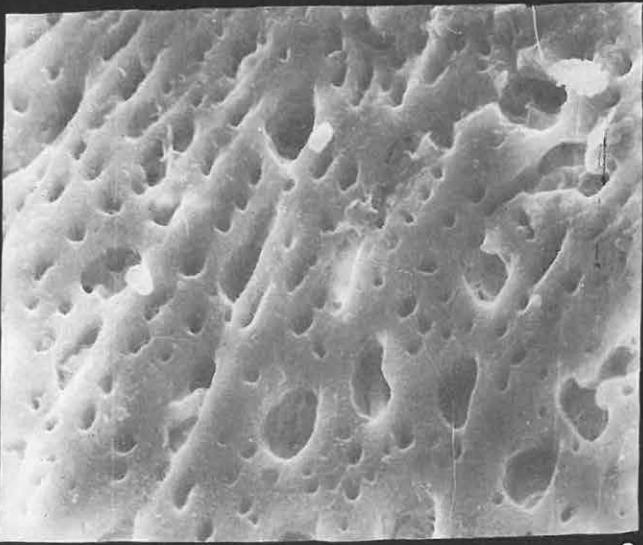
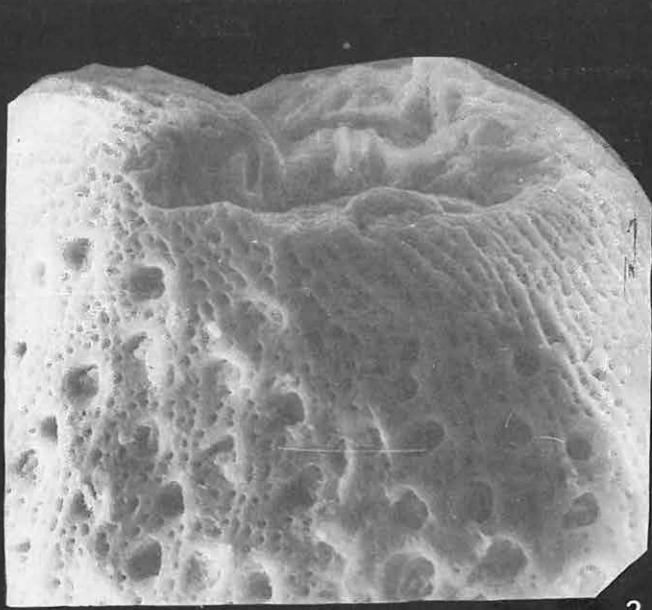
Miocén

Loxostonum limbatum (BRADY)

Nagybörzsöny 8. sz. f. 130,0 m

1. Totálkép — Total picture $130\times$
2. A nyilás és a környező perforált terület — The aperture and the surrounding perforated surface $1000\times$
3. A ház felületét borító perforáció — Perforation covering the surface of the test $2000\times$

SEM-s



CXLI. tábla — Plate CXLI

Miocén

Loxostomum digitale (D'ORBIGNY)

Nagybörzsöny 8. sz. f. 130,0 m

1. Totálkép — Total picture 110×

2. A nyílás körüli imperforált és az alatta levő perforált felület — Imperforated surface around the aperture with the perforated surface below this part 400×

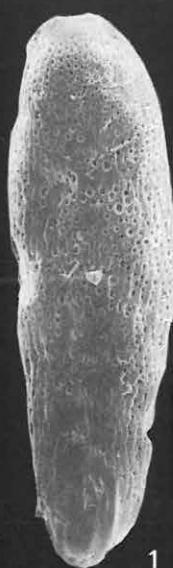
3. A ház felszínén látható perforáció — Perforation on the surface of the test 1000×

Frondicularia laevigata KARRER

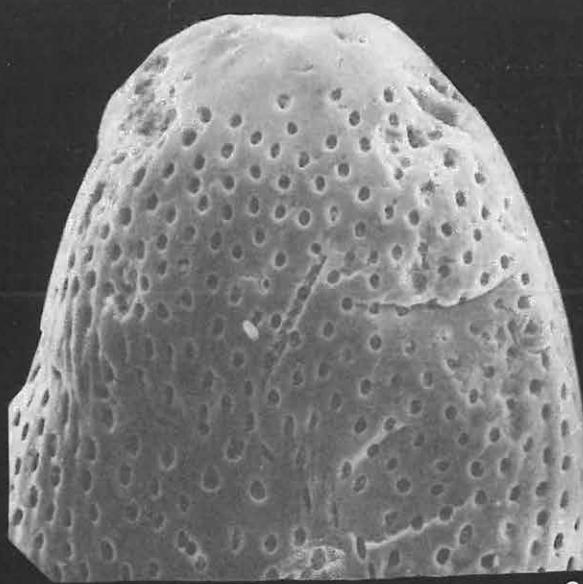
Nagybörzsöny 8. sz. f. 150,0 m

4. Totálkép — Total picture 100×

SEMs

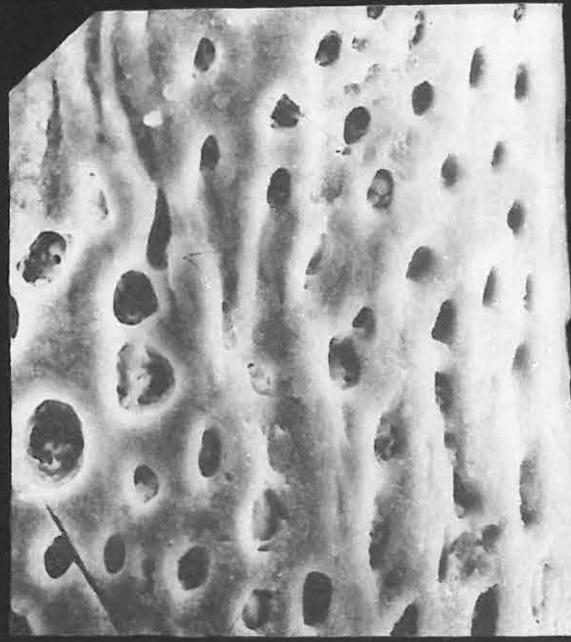


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CXLII. tábla — Plate CXLII

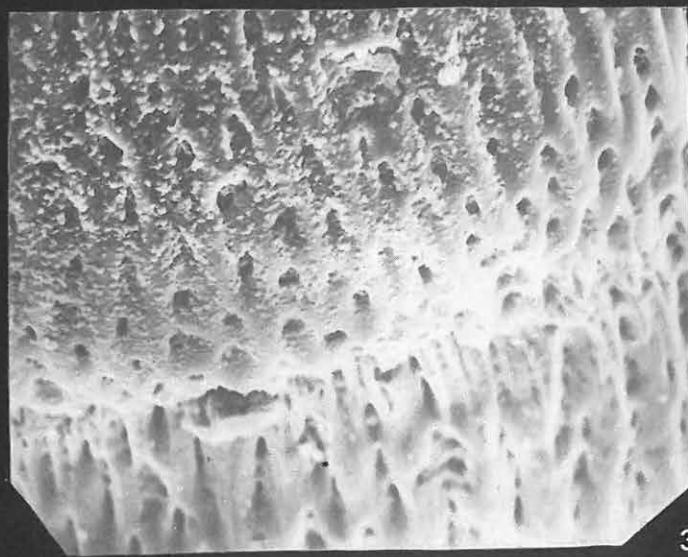
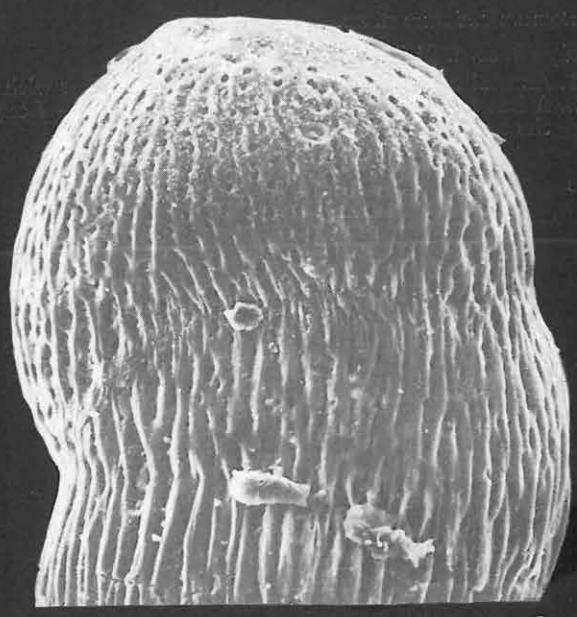
Miocén

Loxostomum striatum n. sp.

Szokolya 2. sz. f. 81,5–82,3 m

1. Totálkép — Total picture $120\times$ 2. A nyílás körül látható perforáció — Perforation around the aperture $320\times$ 3. Két kamra találkozásánál látható perforált felszín — Perforated surface at the junction of two chambers $1000\times$

SEM-s



CXLIII. tábla — Plate CXLIII

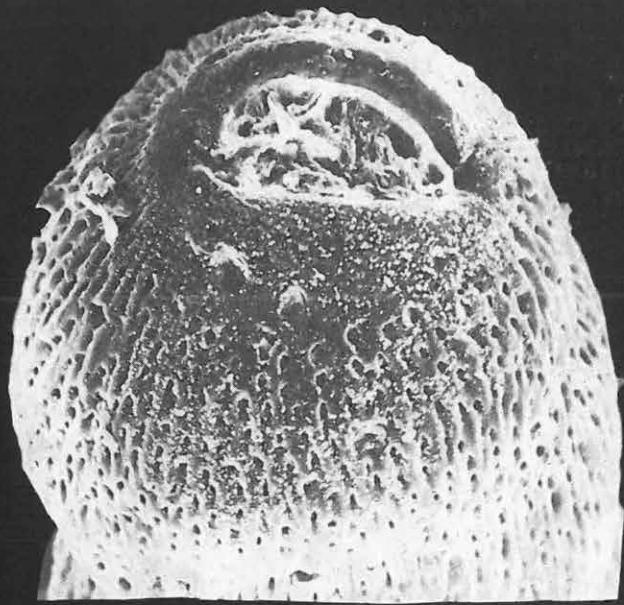
Miocén

Loxostomum striatum n. sp.

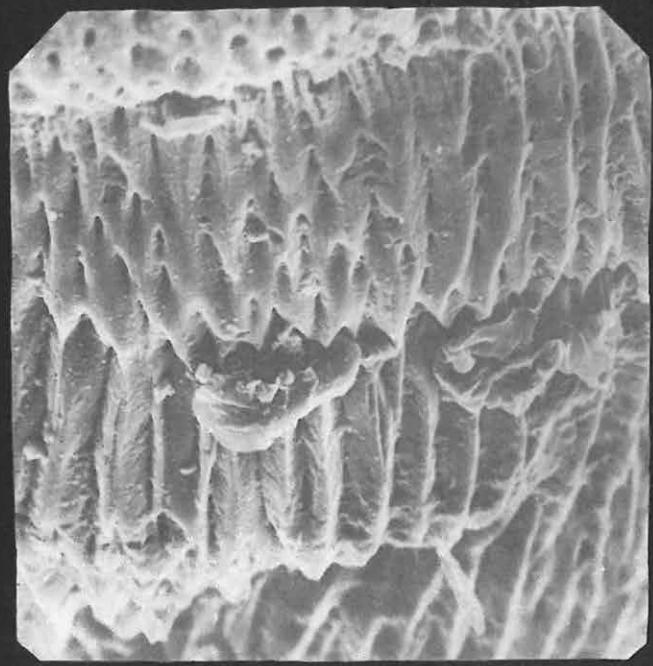
Szokolya 2. sz. f. 81,5—82,3 m

1. Az utolsó kamra a nyílással — Last chamber with the aperture $440\times$
2. A ház felszínén végigfutó hosszanti bordák — Longitudinal ribs on the surface of the test $860\times$

SEM



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2

CXLIV. tábla — Plate CXLIV

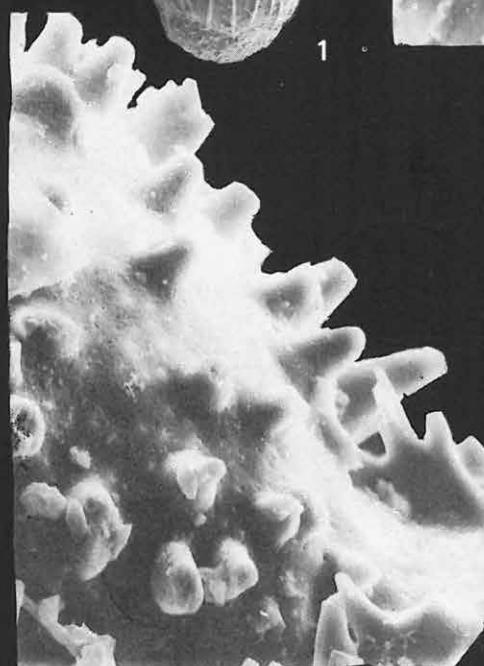
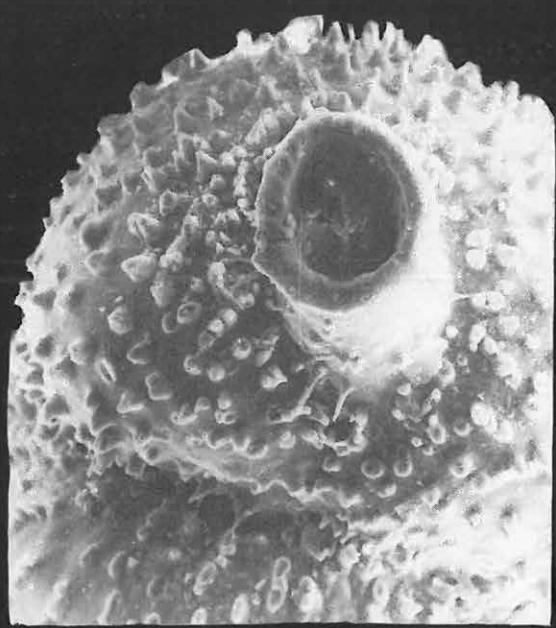
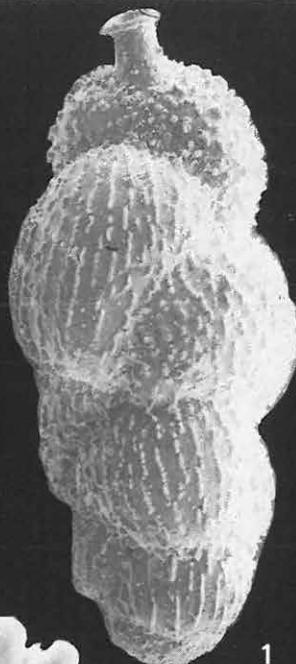
Miocén

Uvigerina asperula CŽJŽEK

Nagybörzsöny 8. sz. f. 38,1 m

1. Totálkép — Total picture $100\times$
2. Az utolsó kamra tüskékkel díszített felülete a nyakon elhelyezkedő nyílással — Prickled surface of the last chamber, with aperture on the neck $320\times$
3. Tüskékkel díszített felület — Prickled surface $1000\times$
4. Gyöngyökkel díszített perforált felület — Perforated surface ornamented with pearls $1000\times$

SEMs



CXLV. tábla — Plate CXLV

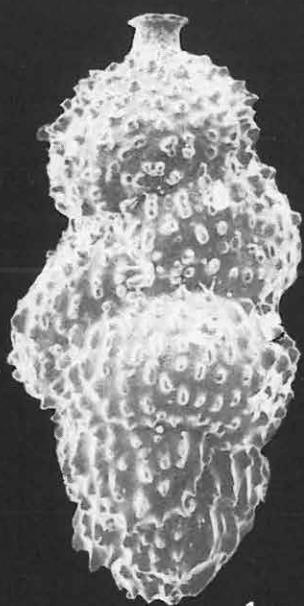
Miocén

Uvigerina aculeata d'ORBIGNY

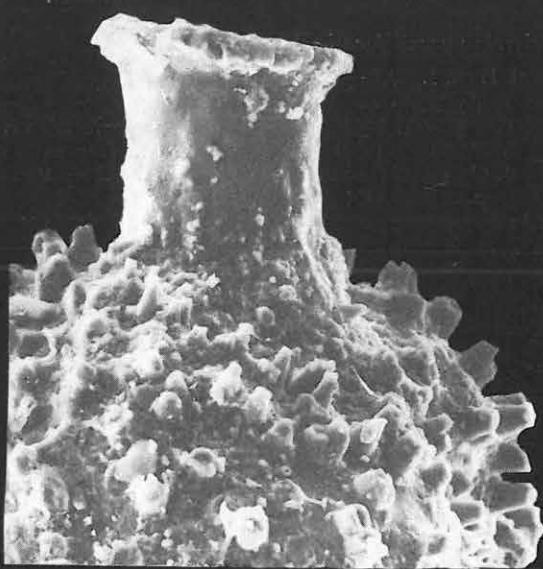
Nagybörzsöny 8. sz. f. 40,0—41,5 m

1. Totálkép — Total picture 100×
2. A tüskékkel díszített utolsó kamra a nyakon elhelyezkedő nyílással — Last chamber, ornamented with prickles, with the aperture on the neck 400×
3. A felület díszítése és a perforáció — Ornamentation of the surface and perforation 600×
4. A peremmel ellátott nyílás, a nyílásban jól látható lemezzel — Aperture with a periphery, in the aperture plate can be observed 400×

SEM



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4

CXLVI. tábla — Plate CXLVI

Miocén

Uvigerina graciliformis PAPP—TURNOVSKY

Hont 1. sz. f. 20,5—22,0

1. Totálkép — Total picture 150×
2. Peremmel ellátott nyílás — Aperture with a periphery 4000×
3. Perforált felület — Perforated surface 4000×
4. Gyöngyös nyak a peremes nyilással — Pearled neck and the aperture with periphery 1000×

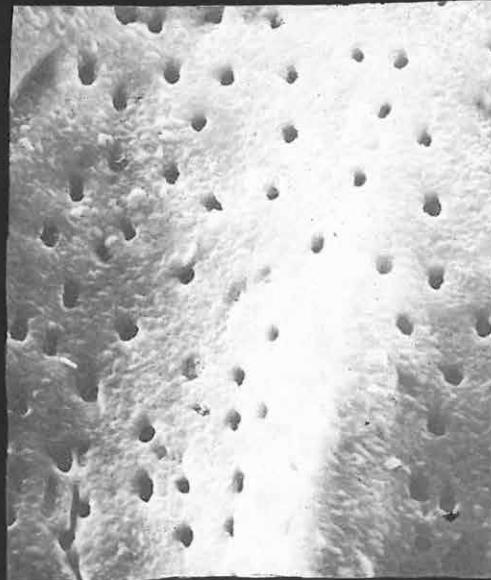
SEM-s



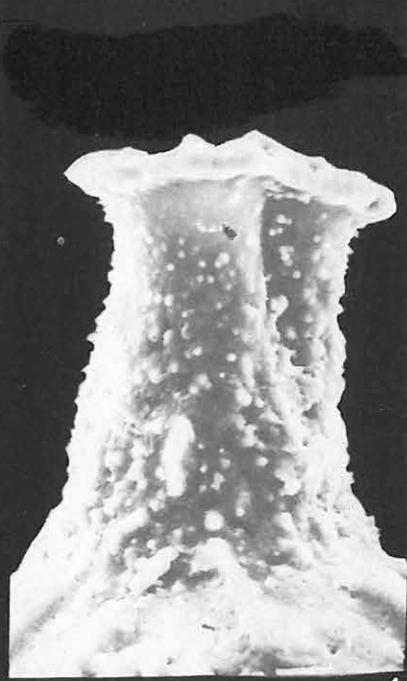
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CXLVII. tábla — Plate CXLVII

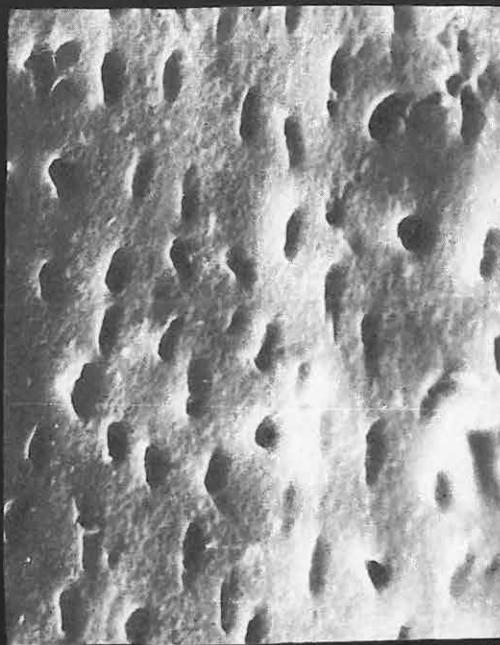
Miocén

Uvigerina pygmea d'ORBIGNY

Szokolya 2. sz. f. 26,2—27,2 m

1. Az utolsó kamra szabálytalan alakú perforációi — Irregular shaped perforations of the last chamber 4000×
2. Totálkép — Total picture 120×
3. A nyakon elhelyezkedő peremmel ellátott nyílás — Aperture on the neck, with a periphery 860×
4. A felületet borító perforáció — Perforation covering the surface 2000×

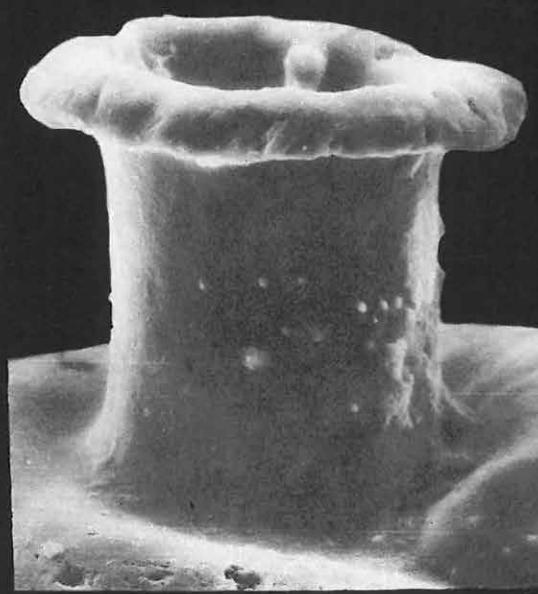
SEM



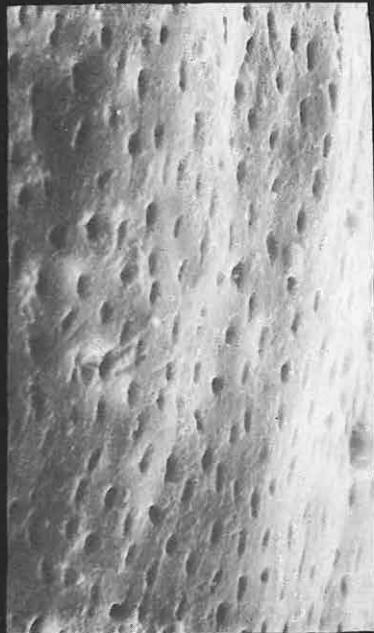
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CXLVIII. tábla — Plate CXLVIII

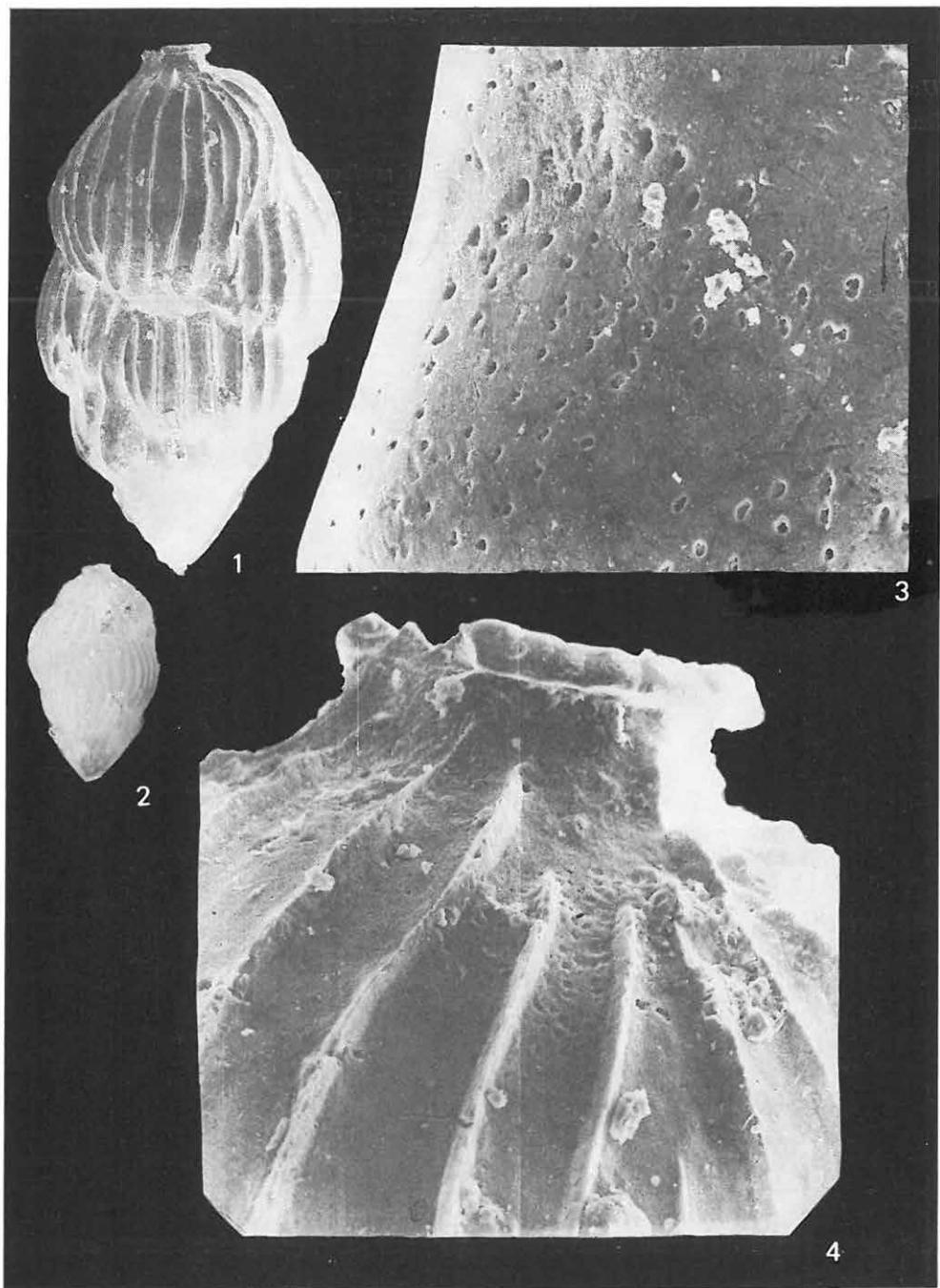
Miocén

Uvigerina pygmaoides PAPP—TURNOVSKY

Szokolya 2. sz. f. 76,7—77,5 m

1. Totálkép — Total picture $100\times$
2. Fénymikroszkópos felvétel — With optical microscope $27\times$
3. Perforált felület — Perforated surface $1000\times$
4. Éles bordákkal díszített utolsó kamra a rövid nyakon elhelyezkedő nyílással —
Last chamber ornamented with sharp ribs, with an aperture on the short neck
 $600\times$

SEMs



CXLIX. tábla — Plate CXLIX

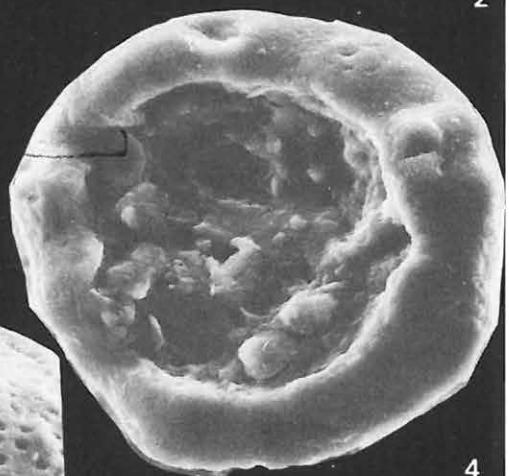
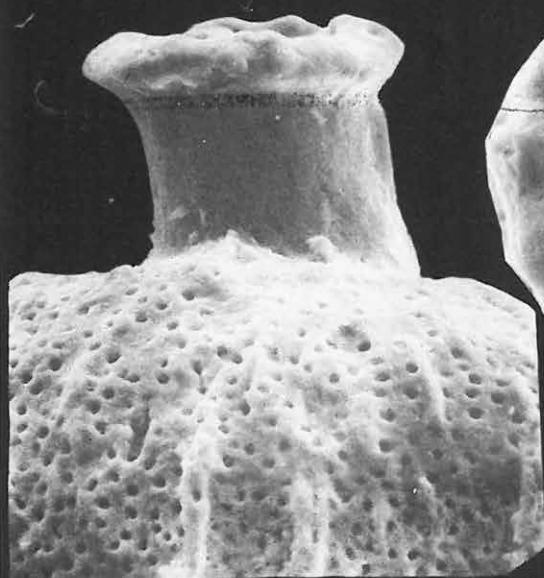
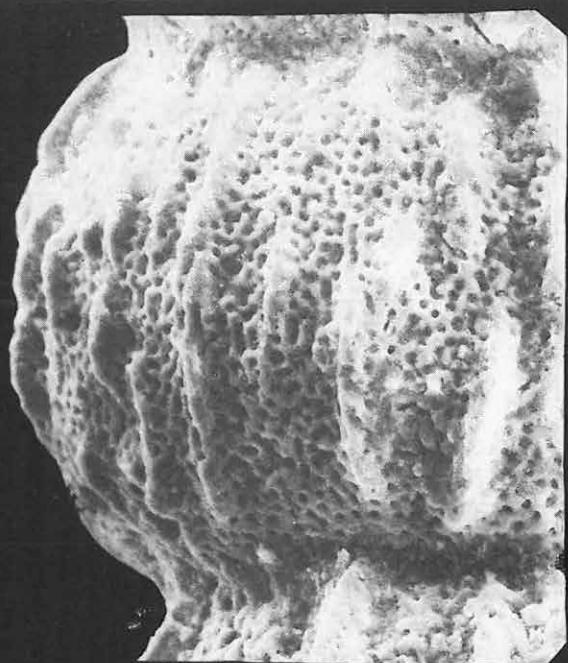
Miocén

Uvigerina szakálensis MAJZON

Szokolya 2. sz. f. 100,0—101,0 m

1. Totálkép — Total picture 120×
2. Sűrűn perforált felület — Densely perforated surface 440×
3. Sűrűn perforált utolsó kamra a nyakon elhelyezkedő nyílással — Densely perforated last chamber with an aperture on the neck 600×
4. Peremmel ellátott nyílás — Aperture with a periphery 1000×

SEM-s



CL. tábla — Plate CL

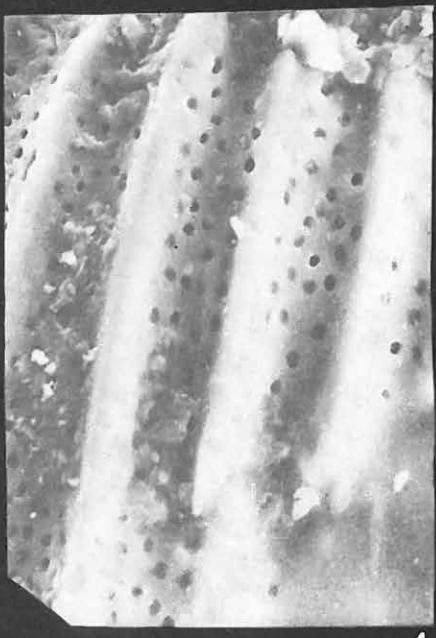
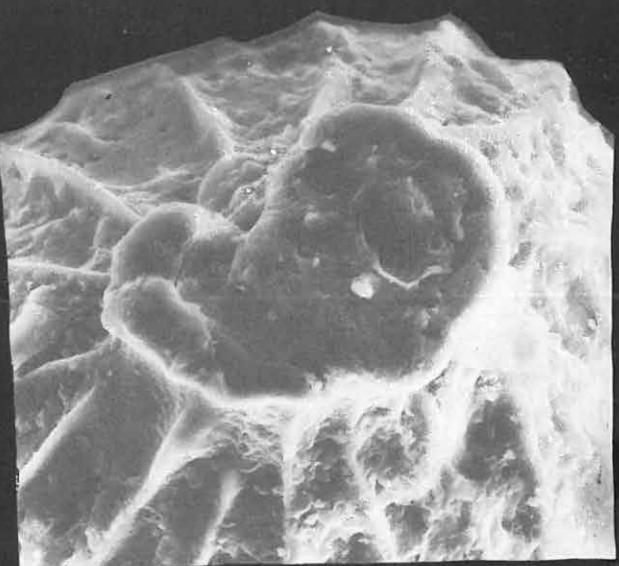
Miocén

Hopkinsina bononiensis (FORNASINI)

Szokolya 2. sz. f. 51,1—51,9 m

1. Totálkép — Total picture 100×
2. A nyílás — The aperture 1000×
3. A megnyúlt utolsó kamra a nyílással — Elongated last chamber with the aperture 1000×
4. A bordák közötti perforáció — Perforation among the ribs 1000×

SEMs



CLI. tábla — Plate CLI

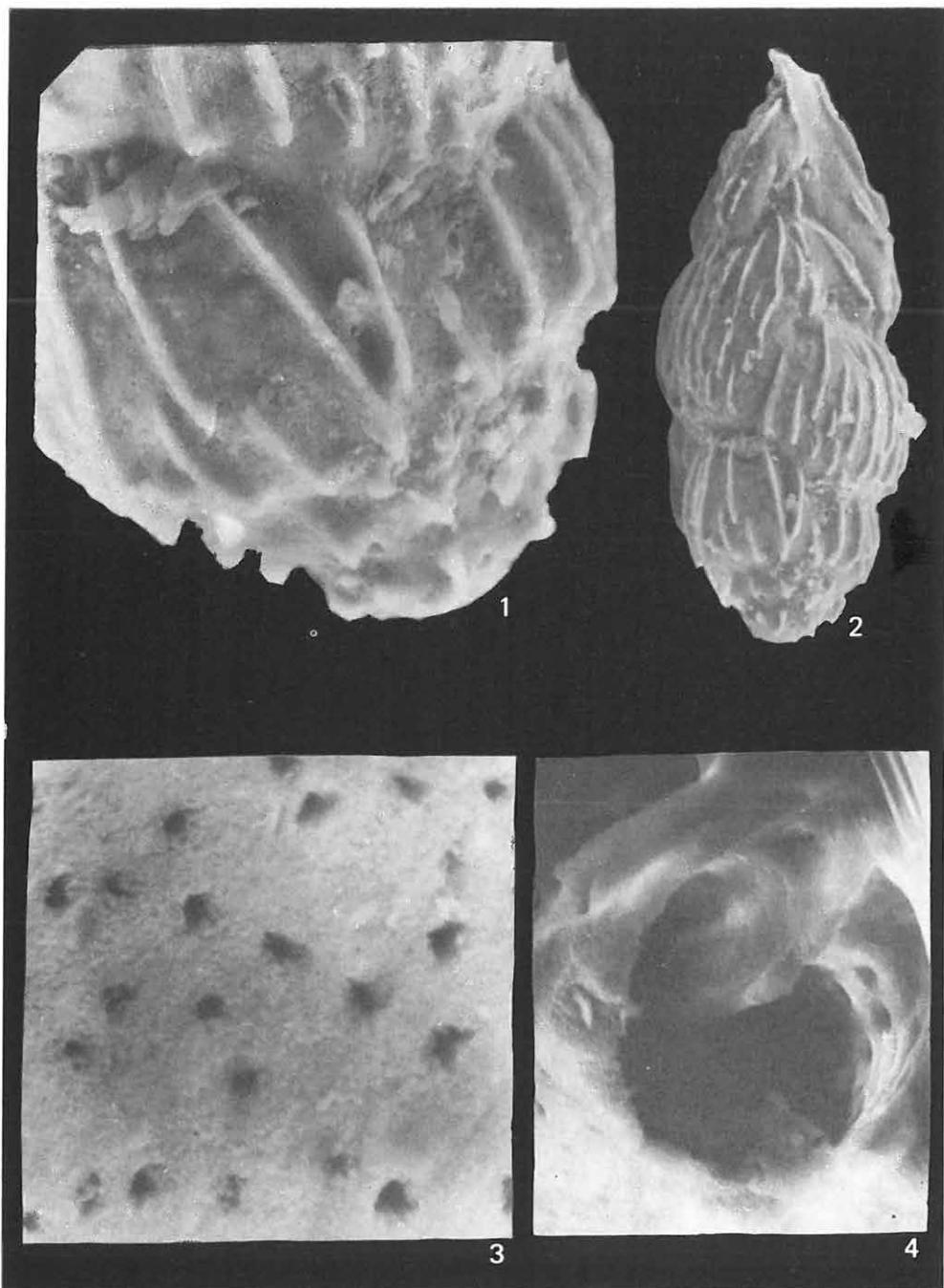
Miocén

Trifarina angulosa (WILLIAMSON)

Szokolya 2. sz. f. 102,0—104,7 m

1. Kezdőkamra a bordás díszítéssel — Early chamber with ripped ornament $1000\times$
2. Totálkép — Total picture $300\times$
3. A felületet borító perforáció — Perforation covering the surface $6000\times$
4. A nyílás a benne elhelyezkedő lemezzel — The aperture with the plates situated within $3000\times$

SEMs



CLII. tábla — Plate CLII

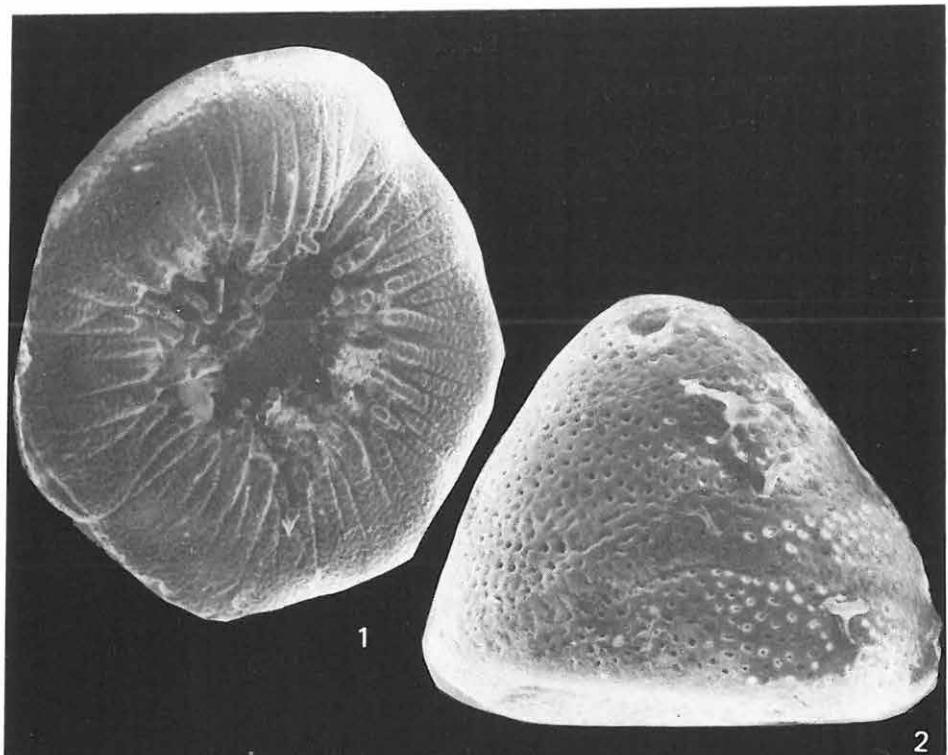
Miocén

Discorbis patelliformis (BRADY)

Hont 1. sz. f. 73,0—75,0 m

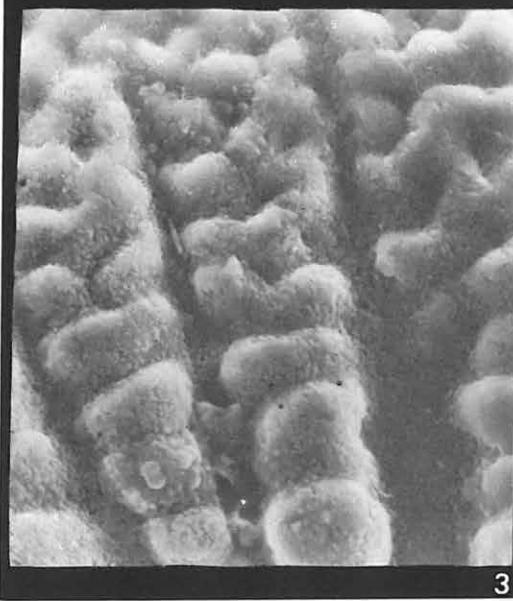
1. Totálkép a díszített köldök oldalról — Total picture from the ornamented umbilical side $300\times$
2. Totálkép oldalnézetből — Total picture from the lateral side $240\times$
3. A köldök oldal fonatszerű díszítése — Braided ornament of the umbilical side $1500\times$
4. A köldök oldal gyöngyszerű díszítése — Pearl-like ornament of the umbilical side $600\times$

SEMs

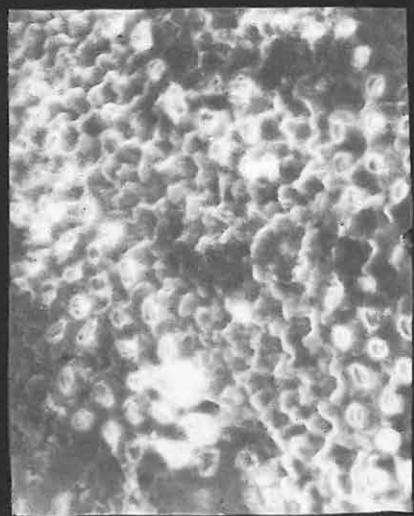


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CLIII. tábla — Plate CLIII

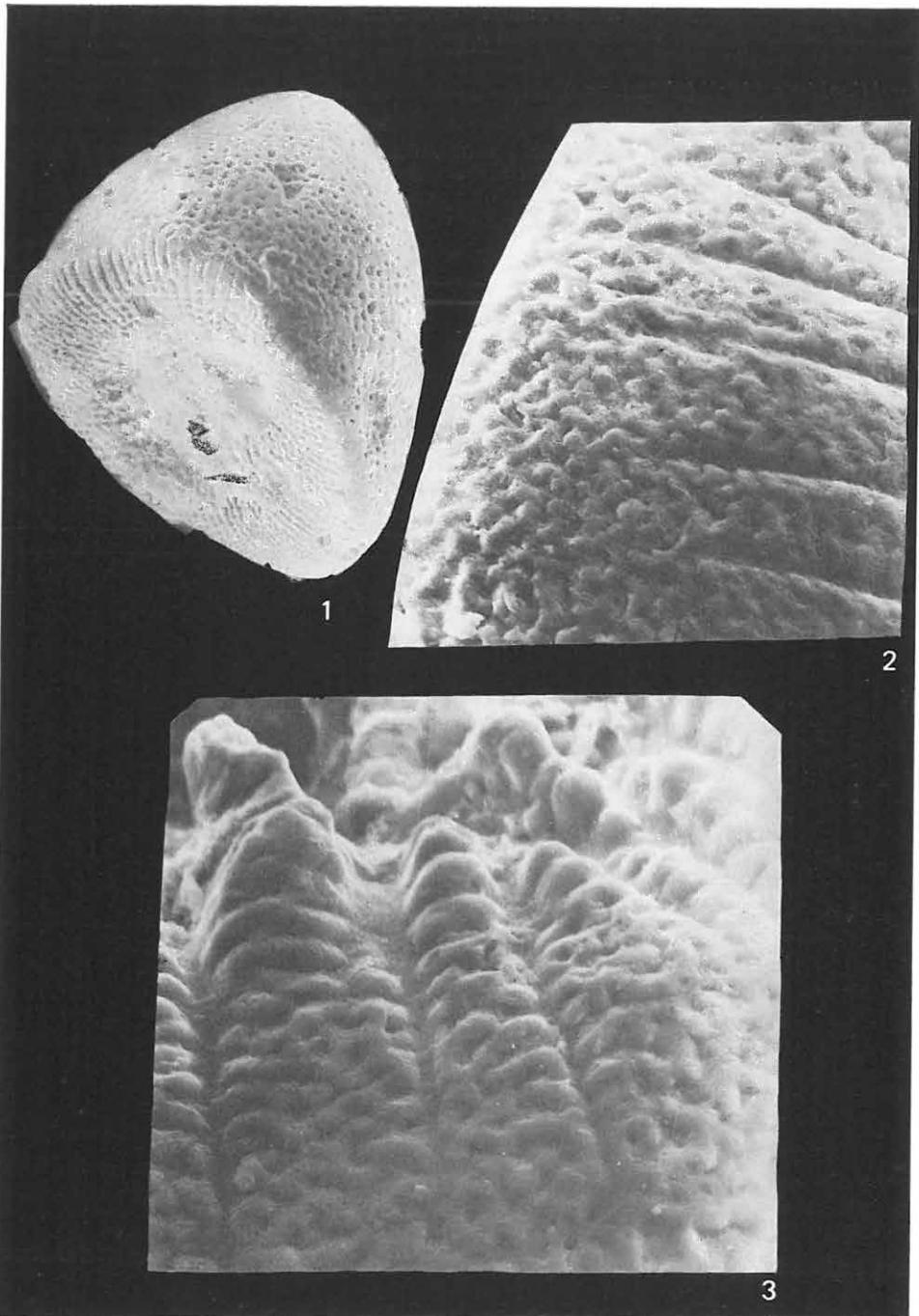
Miocén

Discorbina patelliformis (BRADY)

Hont 1. sz. f. 40,5—42,0 m

1. Totálkép döntve — Total picture in oblique position 240×
2. A köldök oldal díszítése — Ornamentation of the umbilical side 720×
3. A köldök oldal díszítése — Ornamentation of the umbilical side 1000×

SEMs



CLIV. tábla — Plate CLIV

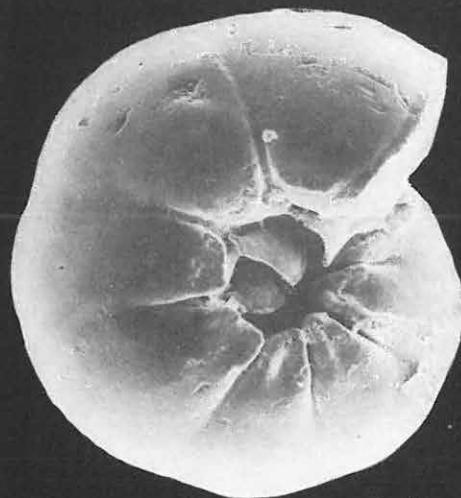
Miocén

Gyroidinoides soldanii (d'ORBIGNY)

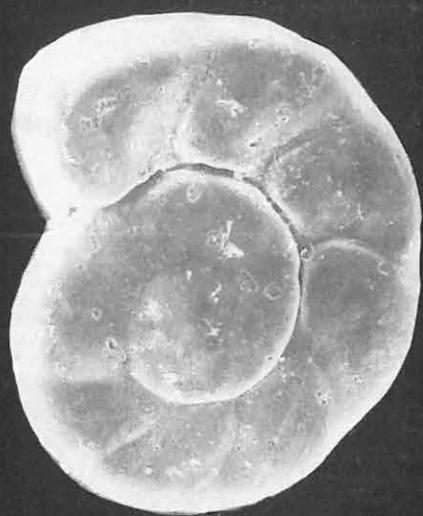
Hont 1. sz. f. 36,0—37,5 m

1. Totálkép, köldök oldal — Total picture, umbilical side 160×
2. Totálkép, tekercs oldal — Total picture, dorsal side 160×
3. Felületi perforáció — Perforation on the surface 200×

SEMs



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CLV. tábla — Plate CLV

Miocén

Ammonia beccarii (LINNE)

Szokolya 3. sz. f. 44,0—45,5 m

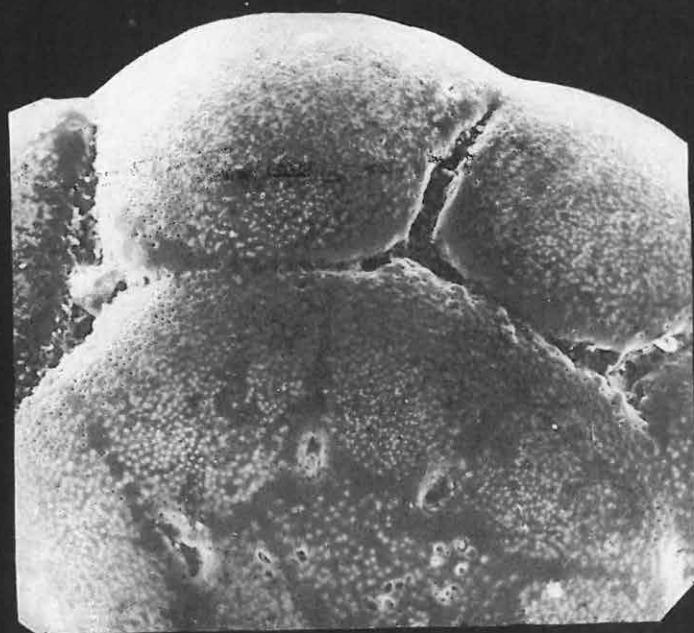
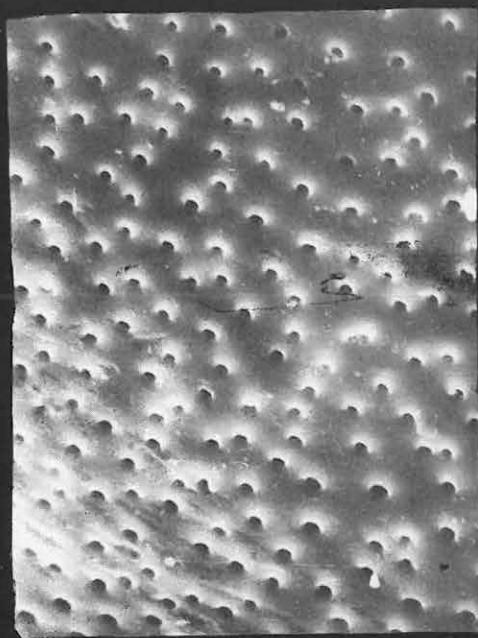
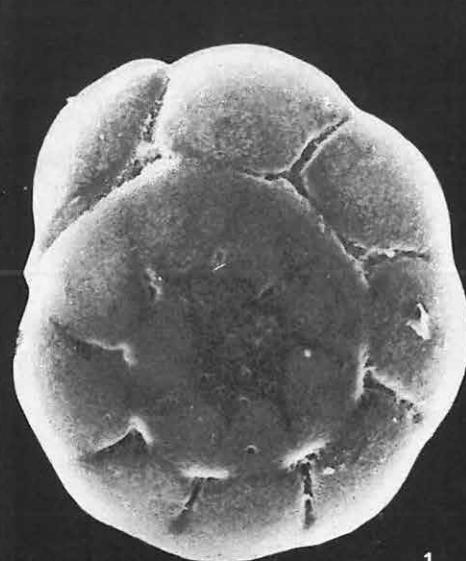
Tekerces oldal — Dorsal side

1. Totálkép — Total picture 180×

2. Felületi perforáció — Perforation on the surface 3000×

3. Kinagyított kamrák — Chambers, enlarged 400×

SEMs



CLVI. tábla — Plate CLVI

Miocén

Ammonia beccarii (LINNE)

Szokolya 3. sz. f. 44,0–45,5 m

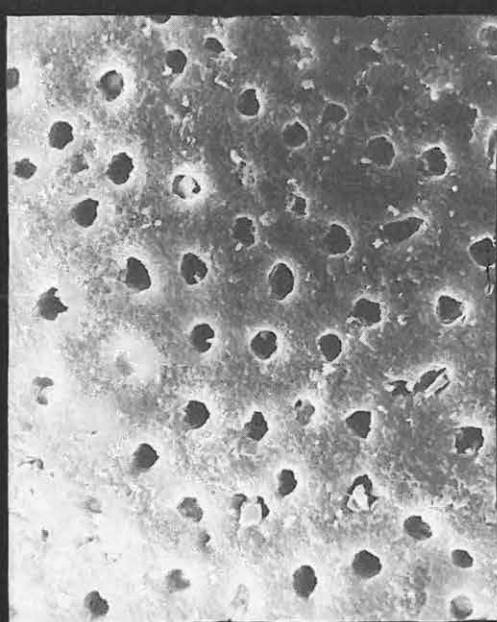
Köldök oldal — Umbilical side

1. Totálkép — Total picture 120×

2. Perforált felület — Perforated surface 3000×

3. A köldök és a kamrák közötti díszítés — Ornamentation between the chambers
and the umbo 400×

SEMs



CLVII. tábla — Plate CLVII

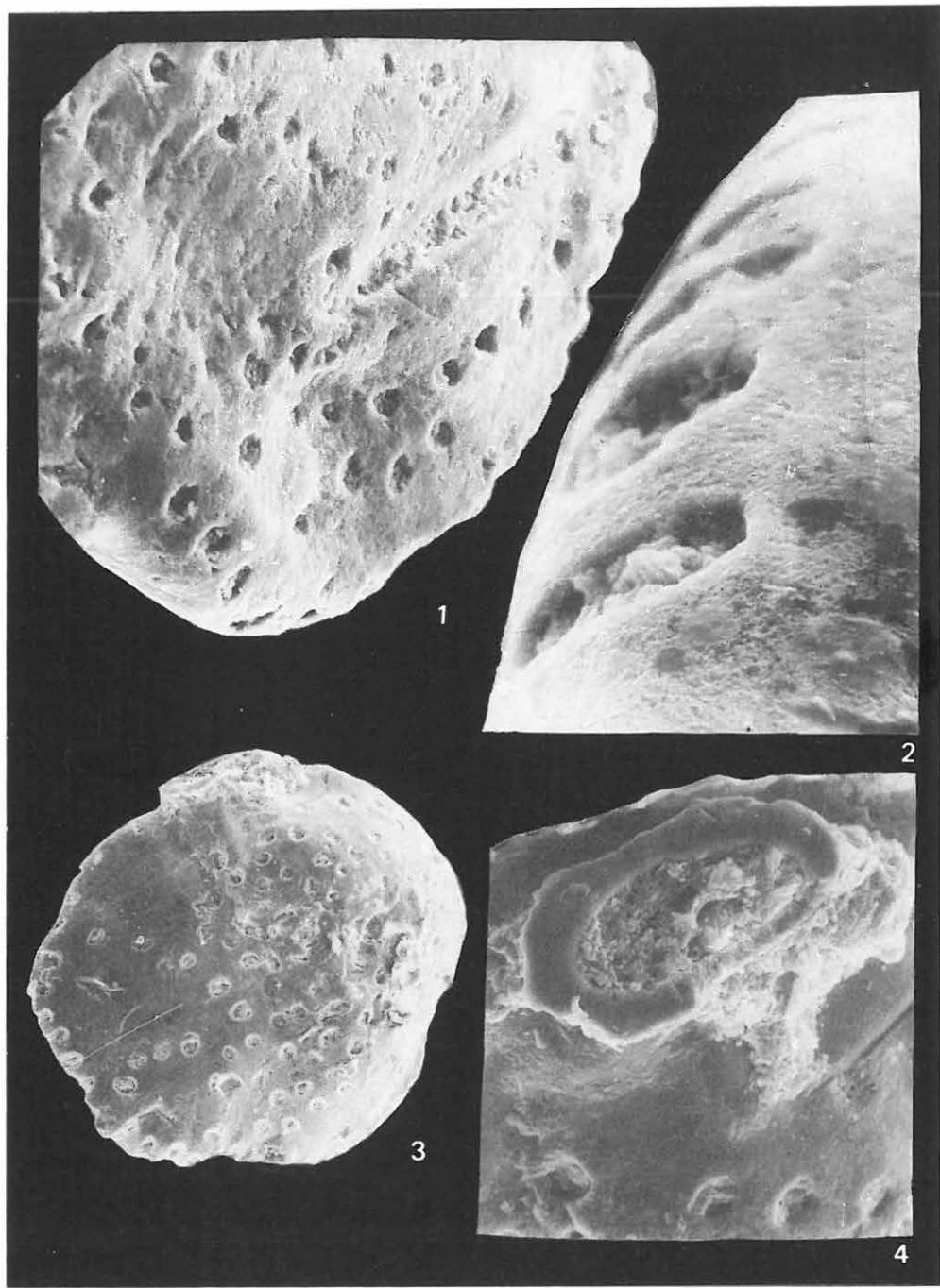
Miocén

Siphonina reticulata (CŽJŽEK)

Szokolya 2. sz. f. 37,0—37,9 m

1. Perforált felület — Perforated surface 540×
2. A ház szélének díszítése — Ornamentation of the margin of the test 2000×
3. Totálkép — Total picture 180×
4. Peremmel ellátott nyílás — The aperture with a periphery 540×

SEMs



CLVIII. tábla — Plate CLVIII

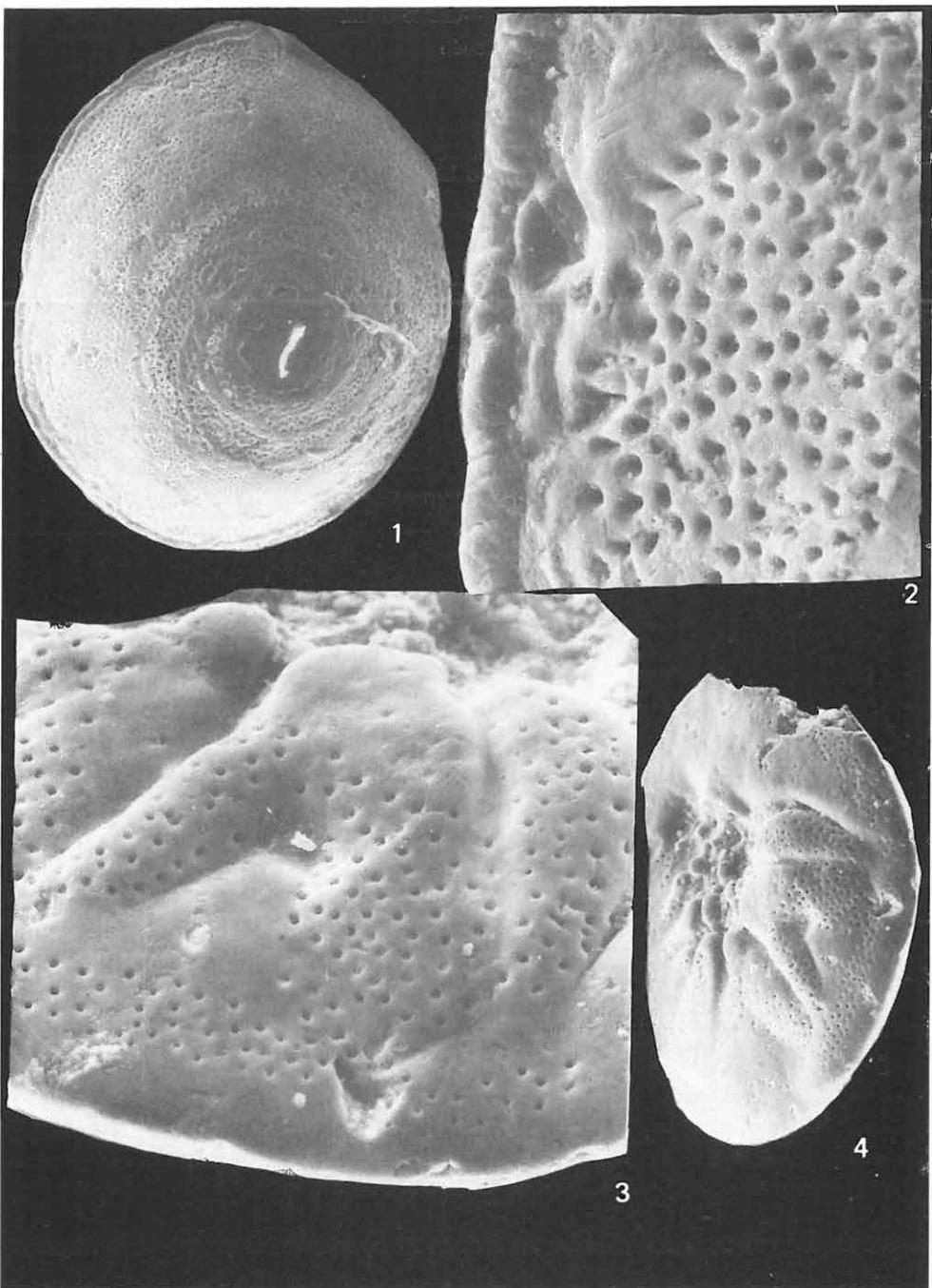
Miocén

Asterigerina planorbis D'ORBIGNY

Szokolya 2. sz. f. 87,1—87,9 m

- 1. Totálkép, tekercs oldal — Total view, dorsal side 150×
- 2. A tekercs oldal perforált felülete — Perforated surface of the dorsal side 1000×
- 3. A köldök oldal perforált felülete — Perforated surface of the umbilical side 600×
- 4. A köldök oldal döntve — The umbilical side in oblique position 200×

SEM-s



CLIX. tábla — Plate CLIX

Miocén

Bolivina advena CUSHMAN

Szokolya 2. sz. f. 91,0—93,0 m

1. Totálkép — Total picture 180×
2. Perforált felület — Perforated surface 1000×

Globigerina ciperoensis ciperoensis BOLLI

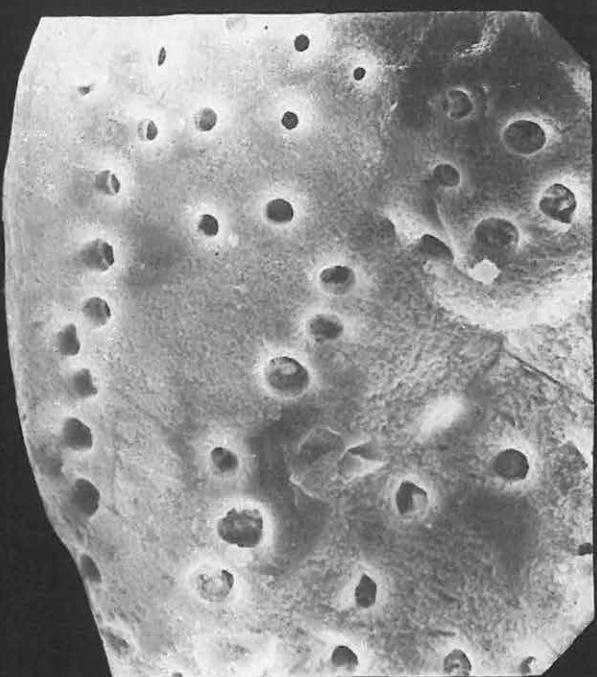
Hont 1. sz. f. 73,0—75,0 m

3. Totálkép, köldök oldal — Total view, umbilical side 240×
4. Totálkép, tekercs oldal (két különböző példány) — Total view, dorsal side (photos on two different specimens) 240×

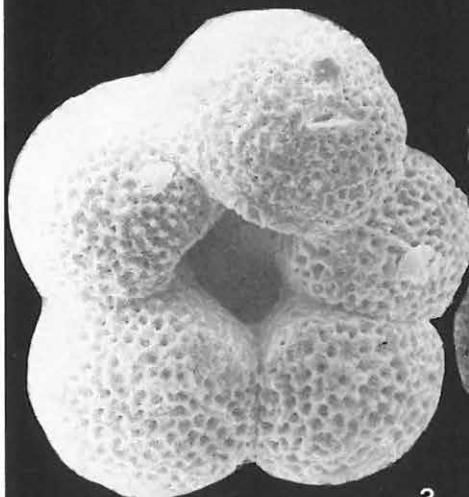
SEM-s



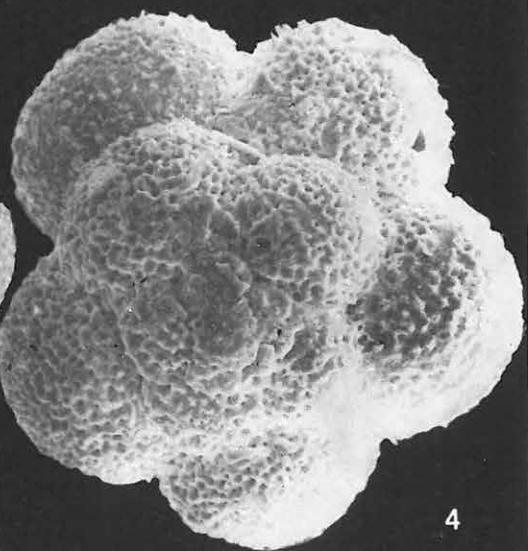
1



2



3



4

CLX. tábla — Plate CLX

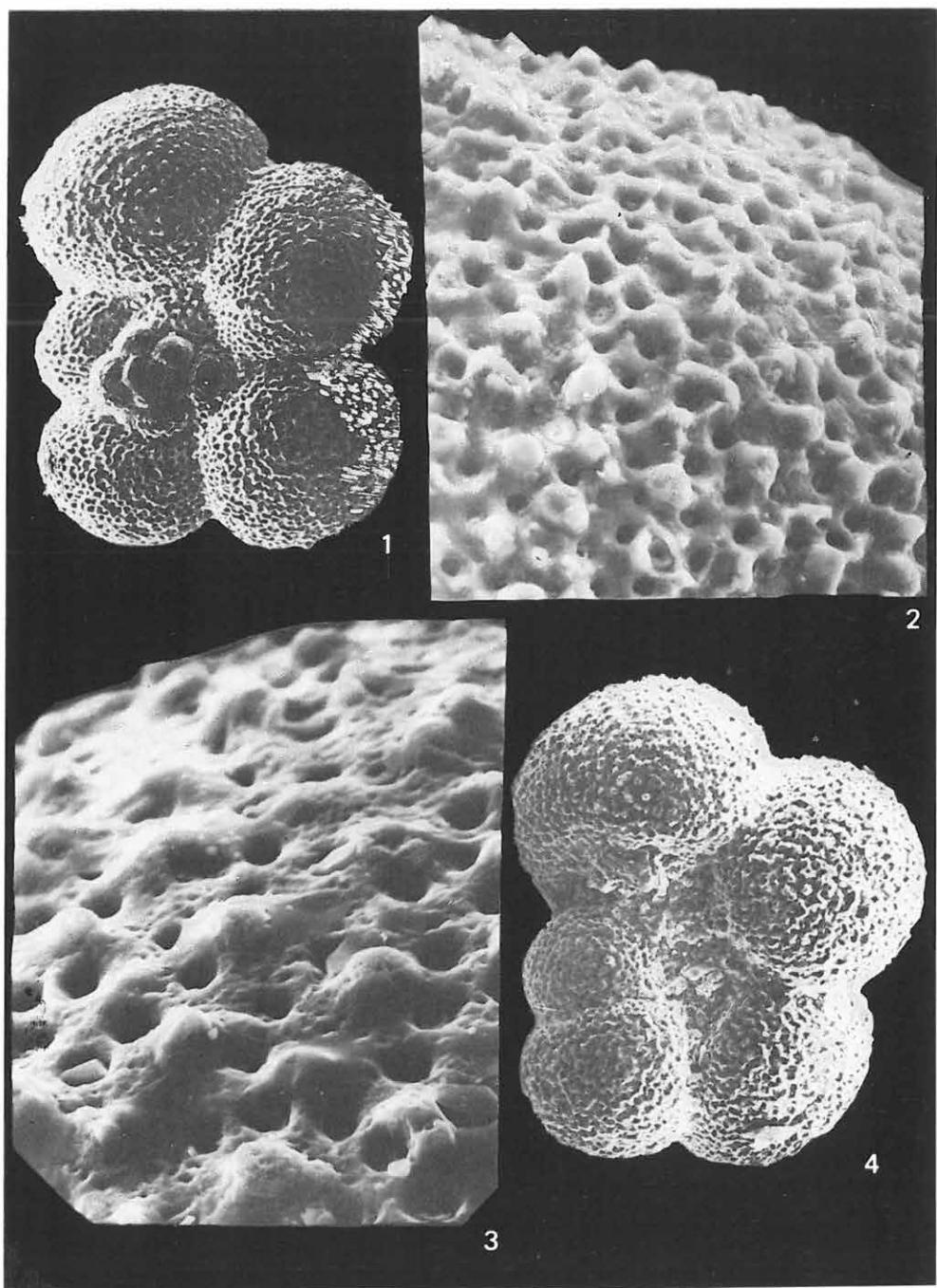
Miocén

Globigerina concinna REUSS

Hont 1. sz. f. 73,0—75,0 m

1. Totálkép, tekercs oldal — Total picture, dorsal side 180×
2. Perforált felszín — Perforated surface 1800×
3. Díszített felület — Ornamented surface 940×
4. Totálkép, köldök oldal — Total picture from the umbilical side 180×

SEMs



CLXI. tábla — Plate CLXI

Miocén

Saracenaria latifrons (BRADY)

Szokolya 2. sz. f. 71,1—71,9 m

1. Totálkép — Total picture 180×

Bolivina pseudoplicata HERON—ALLEN—EARLAND

Szokolya 2. sz. f. 71,1—71,9 m

2. Totálkép — Total picture 260×

Globigerina calida PARKER

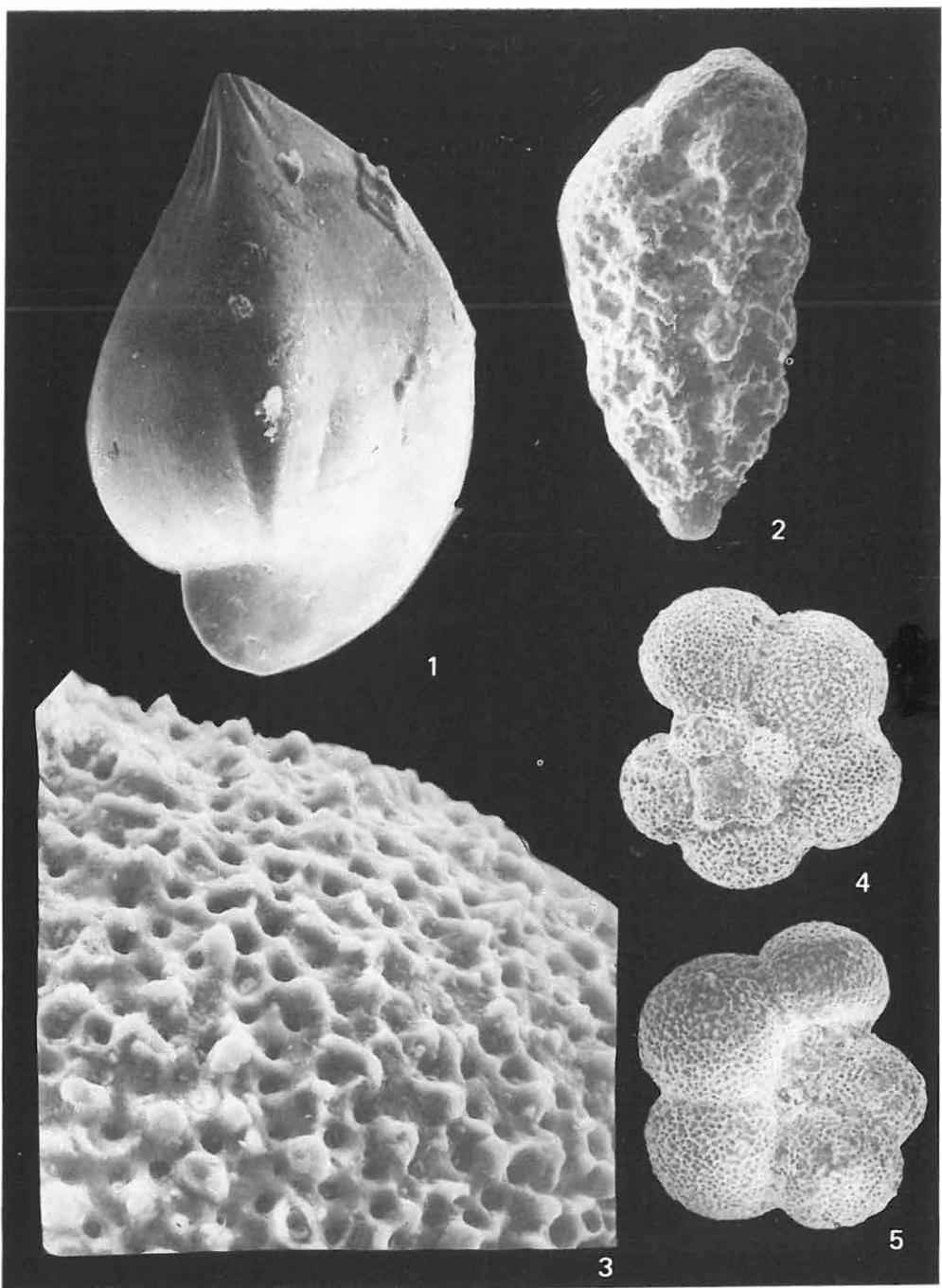
Letkés 1. sz. f. 32,0—34,0 m

3. Díszített, perforált felület — Ornamented, perforated surface 1000×

4. Totálkép, tekercs oldal — Total view, dorsal side 120×

5. Totálkép, köldök oldal — Total picture, umbilical side 120×

SEM



CLXII. tábla — Plate CLXII

Miocén

Globigerina bulbosa LE ROY

Letkés 1. sz. f. 47,0—48,0 m

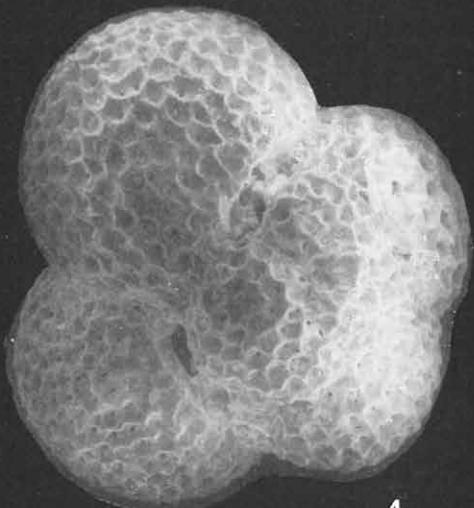
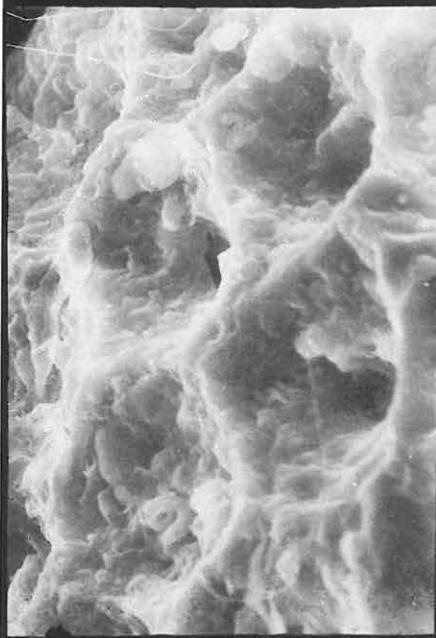
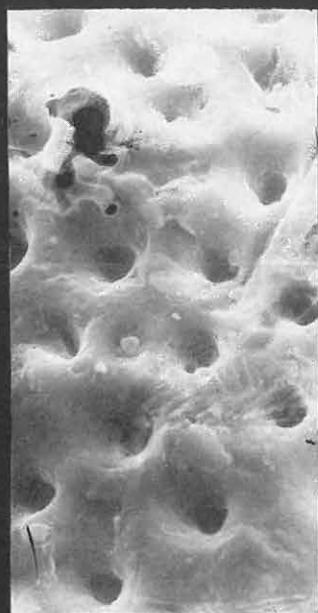
1. Totálkép, tekercs oldal — Total picture, dorsal side 200×
2. Perforált felület — Perforated surface 2000×

Globigerina tetracamerata BOLLI

Letkés 1. sz. f. 47,0—48,0 m

3. Felületi díszítettség — Ornamentation of the surface 2000×
4. Totálkép, tekercs oldal — Total picture, dorsal side 200×

SEMs



CLXIII. tábla — Plate CLXIII

Miocén

Globigerinoides tapiro PERCONIG

Letkés 1. sz. f. 47,0—48,0 m

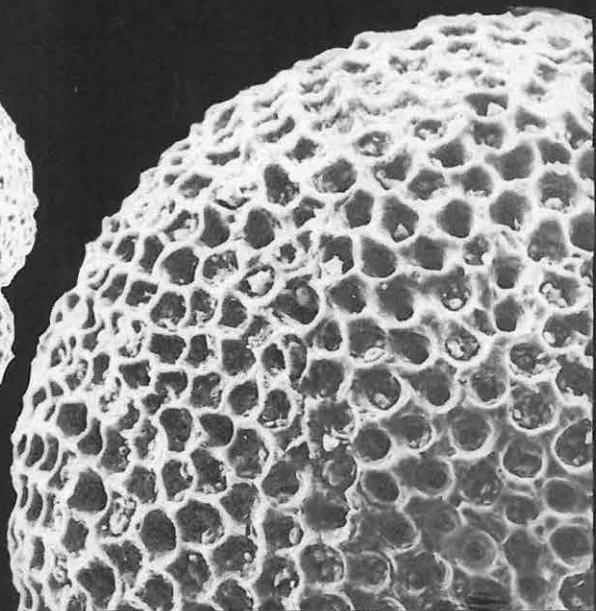
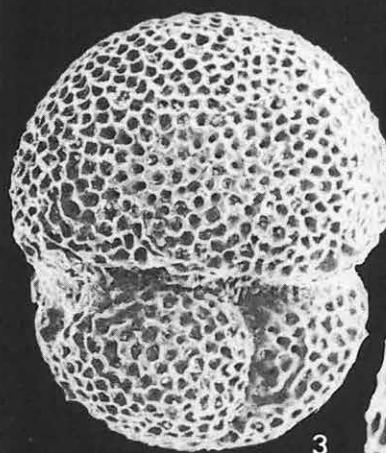
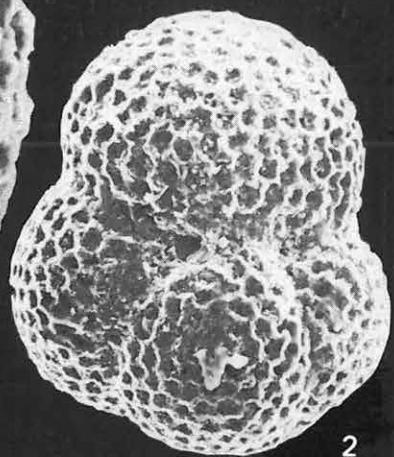
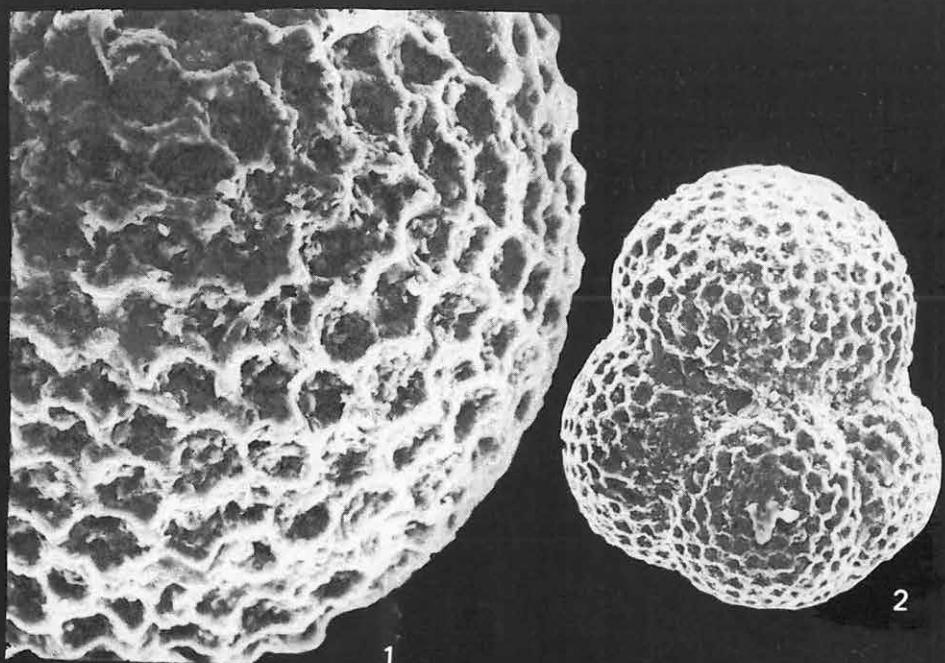
1. Perforált, díszített felület — Perforated, ornamented surface 600×
2. Totálkép, köldök oldal — Total picture, umbilical side 200×

Globigerinoides sicanus DE STEFANI

Letkés 3. sz. f. 18,0—20,0 m

3. Totálkép — Total picture 180×
4. Perforált, díszített felület — Perforated, ornamented surface 400×

SEMs



CLXIV. tábla — Plate CLXIV

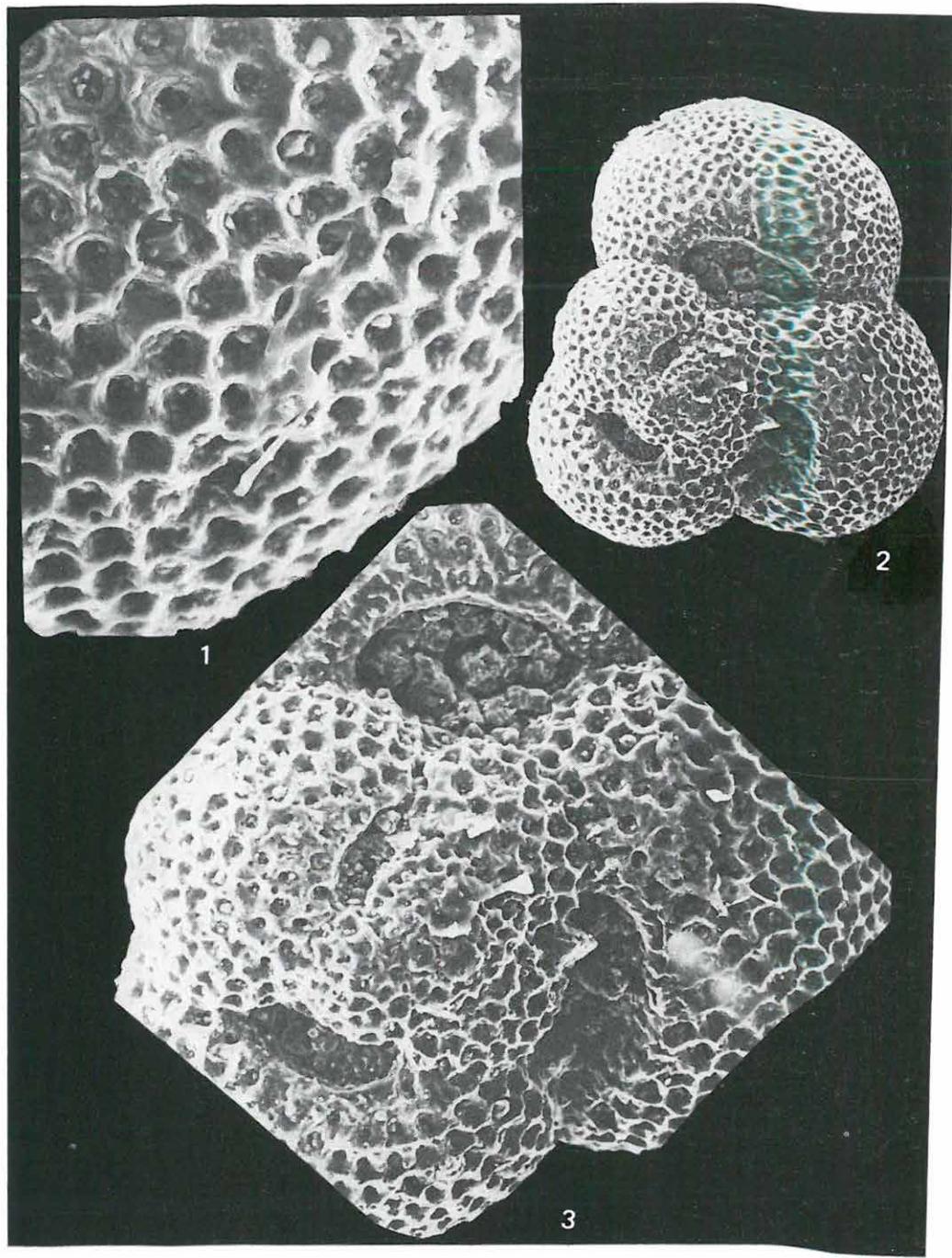
Miocén

Globigerinoides quadrilobata BANNER—BLOW

Letkés 1. sz. f. 32,0—34,0 m

1. Perforált, díszített felület — Perforated, ornamented surface 600×
2. Totálkép, tekercs oldal — Total picture, dorsal side 150×
3. Tekeres oldal, felület a nyflásokkal — Dorsal side, surface with the apertures 240×

SEMs



CLXV. tábla — Plate CLXV

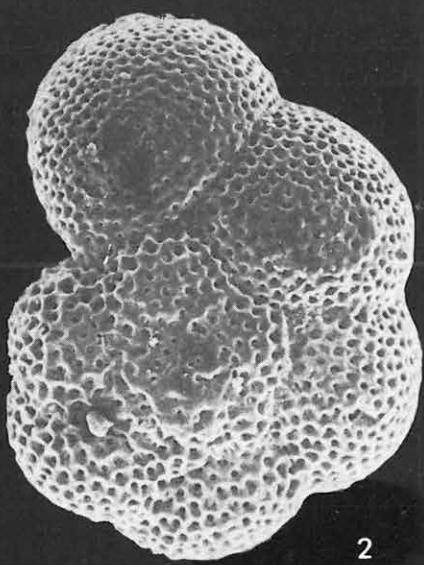
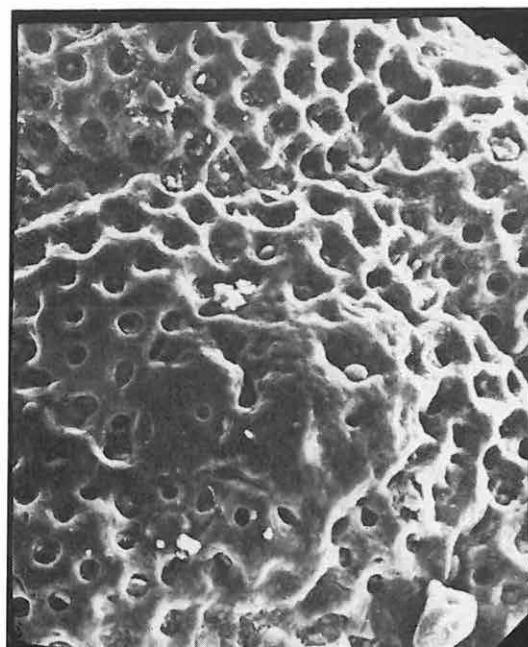
Miocén

Globorotalia mayeri CUSHMAN—ELLISOR

Letkés 1. sz. f. 14,5—16,0 m

1. Perforált, díszített felszín — Perforated ornamented surface 540×
2. Totálkép, tekercs oldal — Total picture, dorsal side 200×
3. Totálkép, köldök oldal — Total picture, umbilical side 200×
4. A felület két kamra érintkezésénél — Surface at the junction of two chambers 780×

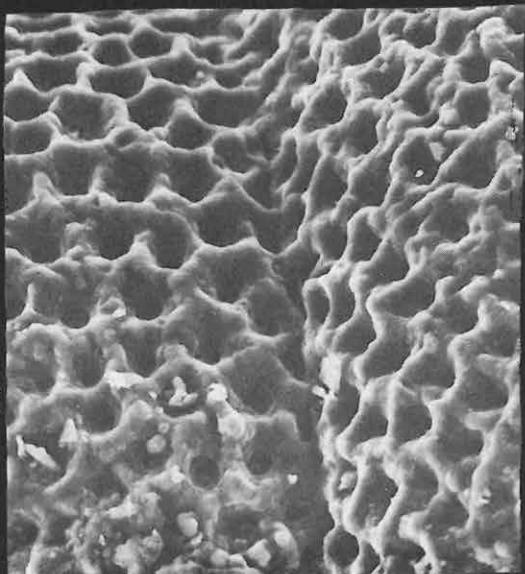
SEMs



1



3



4

CLXVI. tábla — Plate CLXVI

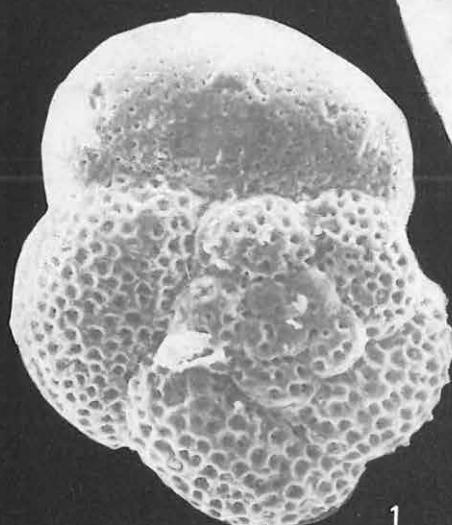
Miocén

Globorotalia bykovae minoritestra PAPP—RÖGL

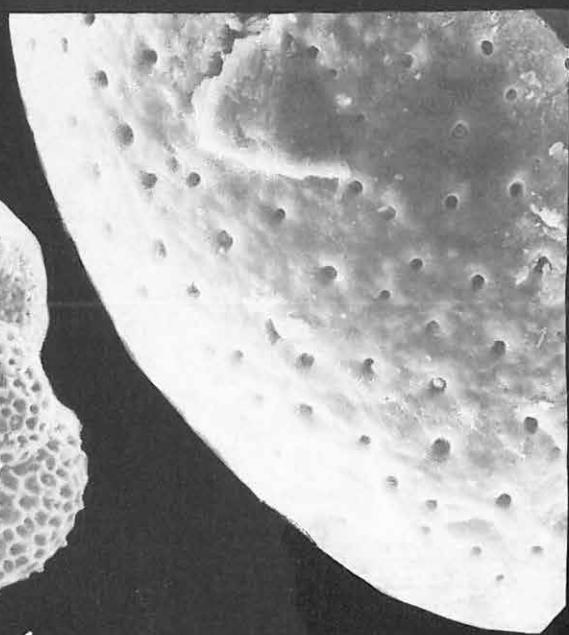
Letkés 3. sz. f. 18,0—20,0 m

1. Totálkép, tekercs oldal — Total picture, dorsal side 260×
2. Az utolsó kamra perforált felülete — The perforated surface of the last chamber 1000×
3. Az idősebb kamrák perforált, díszített felülete — Ornamented, perforated surface of the old chambers 1000×

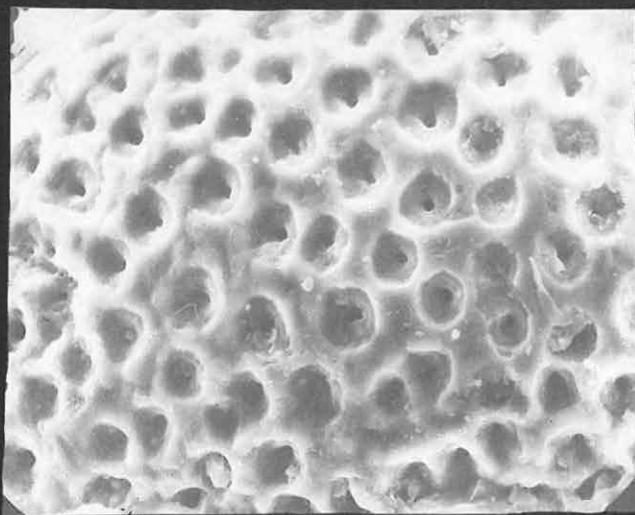
SEM-s



1



2



3

CLXVII. tábla — Plate CLXVII

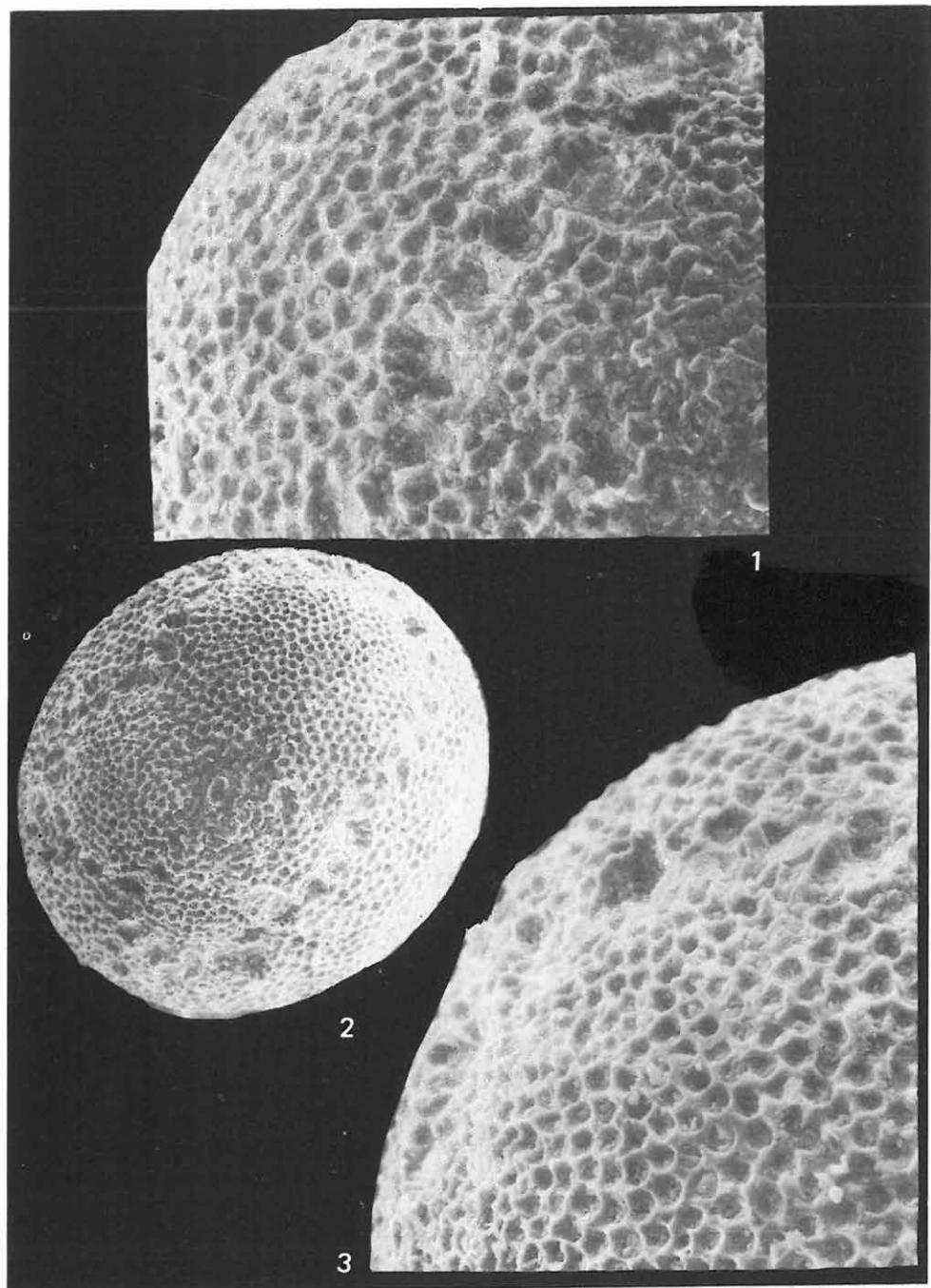
Miocén

Orbulina universa d'ORBIGNY

Letkés 3. sz. f. 18,0—20,0 m

1. Díszített felület — Ornamented surface 300×
2. Totálkép — Total picture 130×
3. Díszített, perforált felület — Ornamented, perforated surface 360×

SEMs



CLXVIII. tábla — Plate CLXVIII

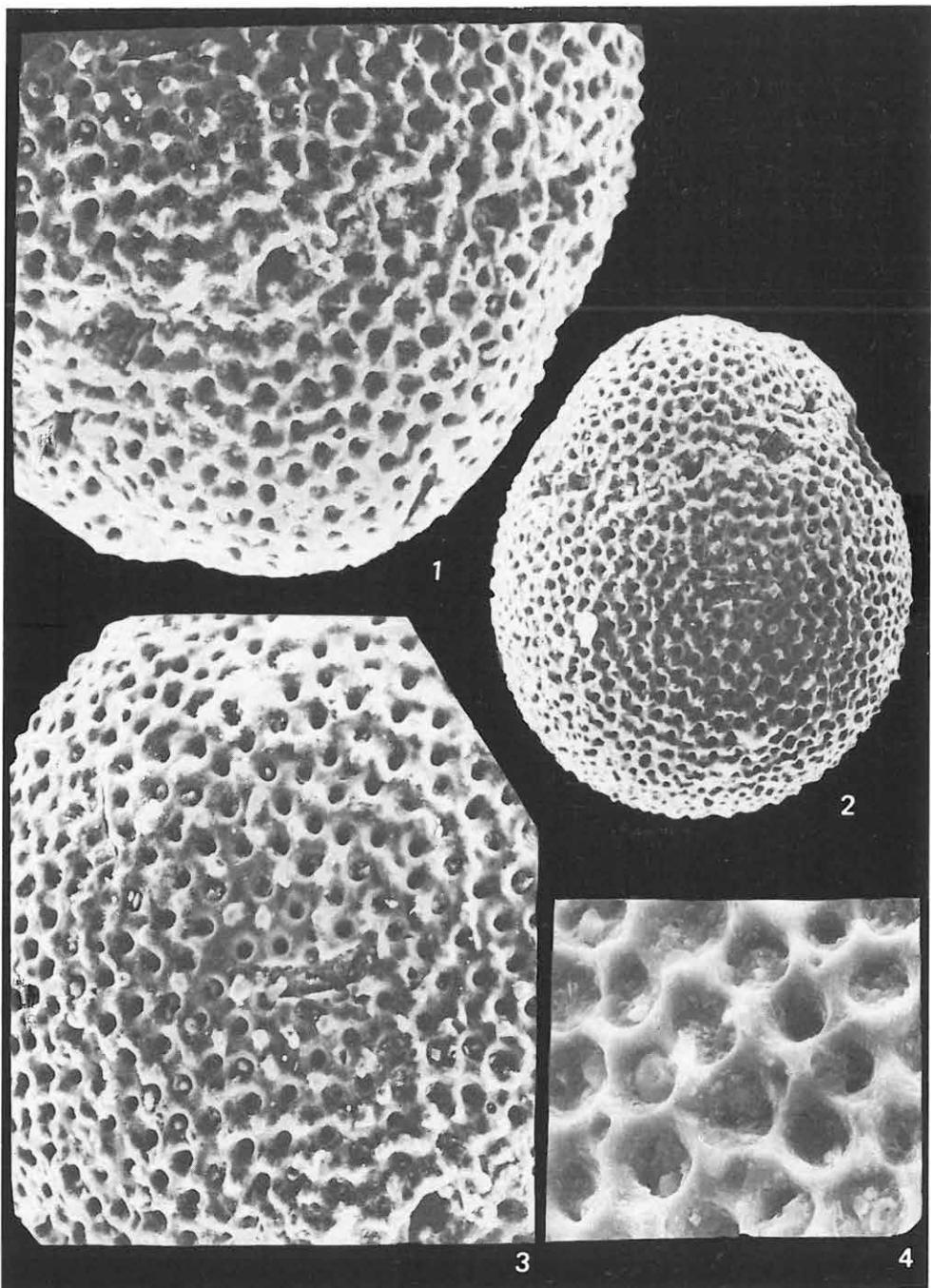
Miocén

Orbulina suturalis BRÖNNIMANN

Letkés 3. sz. f. 18,0—20,0 m

1. Diszitett felület — Ornamented surface 400×
2. Totálkép — Total picture 200×
3. Perforált felület — Perforated surface 400×
4. Perforáció — Perforation 1500×

SEMs



CLXIX. tábla — Plate CLXIX

Miocén

Orbulina bilobata (d'ORBIGNY)

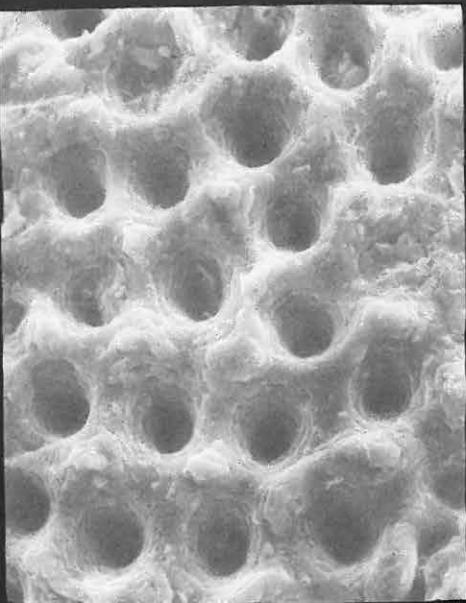
Letkés 3. sz. f. 18,0—20,0 m

1. Totálkép — Total picture $150\times$
2. Perforált, díszített felszín — Perforated, ornamented surface $400\times$
3. Perforált felszín a kamrák érintkezésénél — Perforated surface at the junction of the chambers $1000\times$

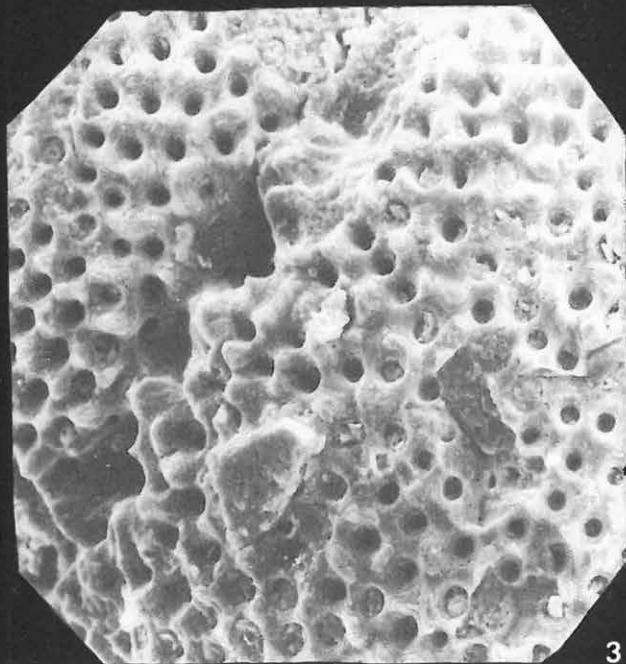
SEM-s



1



2



3

CLXX. tábla — Plate CLXX

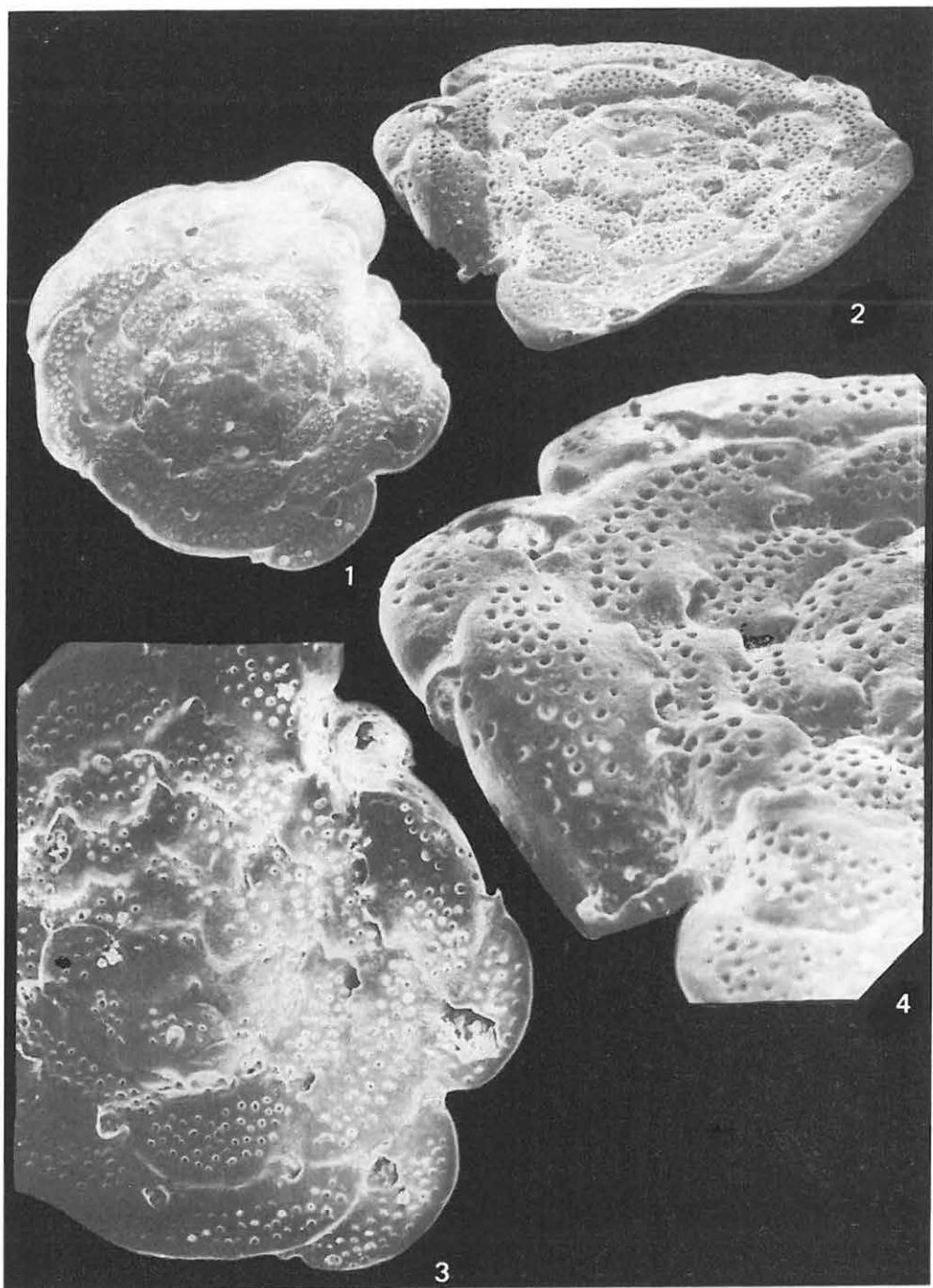
Miocén

Planorbulina mediterranensis d'ORBIGNY

Szokolya 2. sz. f. 102,0—104,0 m

1. Totálkép — Total picture 100×
2. Totálkép megdöntve — Total picture in oblique position 130×
3. A ház középső és peremű része — Central and marginal parts of the test 180×
4. Perforált felszín a nyílásokkal — Perforated surface with the apertures 300×

SEM



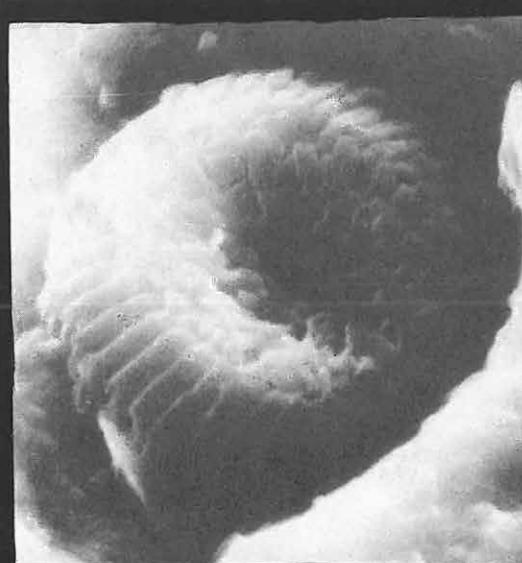
CLXXI. tábla — Plate CLXXI

Miocén

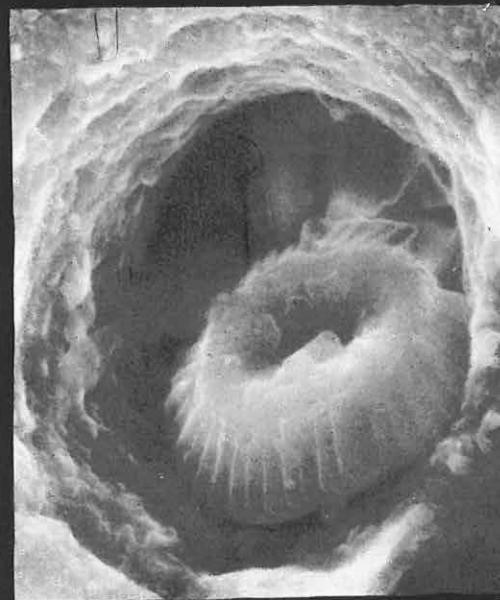
Coccolithok plankton Foraminifera pörusokban — Coccoliths in planktonic foraminiferal pores

1. 10 000×
2. 8600×
3. 6000×
4. 9400×

SEM



1



3



4

