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Appendix: list of members

N O T E !!!!

NEW BOTANICAL CODE

In 1978 a new edition of the International Code of Botanical Nomenclature has been issued. Several of the rules have been changed. See page 4 for further information.

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NEXT ISSUE

Contributions for the next issue of the INA Newsletter should be received before September 1980. Please send your contributions to: The Editorial Committee of the INA Newsletter, c/o S.E. van Heck (address: front page).

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INTRODUCTION OF NEW TAXA AND VALIDATIONS IN THE NEWSLETTER

As of February 29 we have received 32 answers to our questionnaire in INA Newsletter vol.1(2), with the following results:

the introduction of	new taxa	validations	in the INA Newsletter
in favour:	16	27	
against :	15	5	
neutral :	1		

Thus most of those answering are in favour to have validations published in the Newsletter, and we will continue to do so. The publication of new taxa received about equal opposition and support. Several opponents stated the lack of plates to be their reason for opposing the publishing of new species in the Newsletter. The lack of plates in the Newsletter so far is due to the fact that none were submitted by the authors ..... who will have to pay for the appropriate reproduction or submit the necessary number of copies of their plate(s) themselves (number to be asked from the editor).

We realize that the presently relatively modest circulation of the Newsletter (the INA had 125 members on 1.1.1980) will make it difficult in the distant future to refer back to the original description of a taxon described in the INA Newsletter. To get around this problem A. Farinacci, Rome, agreed to include the species described in the Newsletter in the next volume of her CATALOGUE, if the authors send her their original plate(s) immediately, or authorize the INA editor to do so.

CONCLUSION: we will publish validations and new taxa, provided illustrations of new species are satisfactory.

KPN

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EDITORIAL NOTE

After the try-out of the first two issues of the INA Newsletter, time has come to make some changes, according to the suggestions of several members. The complex page numbering system has been changed to a normal one. We thought a different code for each section would be easier, but considering the reactions, we were probably overdoing it. The other changes mainly concern the 'Bibliography and taxa' and will be discussed there.

NEW BOTANICAL CODE

Very few people are probably aware of the fact that the International Code of Botanical Nomenclature is revised every few years. The changes that are made, have been adopted by the International Botanical Congress, after which a new code is issued by the International Association of Plant Taxonomists (IAPT). The issue of 1978 differs in several points from the previous issue, and anybody seriously trying to apply the rules correctly will need this new code.

The full reference is:

Stafleu,F.A., Voss,E.G. et al., editors. International Code of Botanical Nomenclature as adopted by the XIIth International Botanical Congress, Leningrad 1975. Utrecht, Netherlands 1978. Regnum vegetabile vol.97, published by Bohn, Scheltema and Holkema, viii, 457 pp.(ISBN 90-313-0332-1)

Orders should be sent to the publishers: Bohn, Scheltema and Holkema, P.O.Box 23, 7400GA Deventer, Netherlands. Price Dfl. 70,- (US$ 33,50)

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CONGRESSES

7th European Congress on electron microscopy including the
9th International Conference on X-ray optics and microanalysis (ICXOM)
August 24th - 29th The Hague

Congress Secretariat:
Seventh European Congress on Electron Microscopy
c/o Netherlands Congress Centre
P.O.Box 82000
2508EA The Hague
The Netherlands.

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International Symposium on "Concept and Method in Paleontology"
Barcelona, May, 1981

Organized by the Facultat de Geologia,
Universitat de Barcelona
(Departament de Paleontologia)
Barcelona
Spain

If you know of any coming congress that might be interesting to your colleagues, please inform them by sending the data to the editor.

BIBLIOGRAPHY AND TAXA OF CALCAREOUS NANNOPLANKTON

Compiled by Shirley E. van Heck

The sections 'Bibliography and taxa ...' and 'Taxonomical Notes' have been joined, because after all, both deal with the same subject. Also the title 'Taxonomical Notes' has been replaced by 'Comments', because the notes were mainly nomenclatural and had little to do with taxonomy. Under 'Comments' all sorts of remarks concerning nomenclature, bibliography and taxonomy can be found.

Both the references and the taxa have been placed in alphabethical order this time. This is not a promise for the future, but a try out. Whether or not it will be continued will depend mainly on the amount of time I have available. Behind the list of taxa you will find a separate list on which the species have been placed in alphabethical order, followed by the genus names under which they can be found. Accordingly, the taxa are only listed once, which of course saves space.

The taxa which are in agreement with the ICBN are normally underlined, whereas the taxa that are in conflict with the Code are indicated with a broken line. All taxa or references to which comments are made in the section 'Comments' are marked with a *C in the last column.

Because wrong terminations unfortunately occur rather regularly, these are not commented on. They are included in the corrected version, as required by Art.32.4 of the ICBN. A wrong termination has no consequences for the validity of a taxon. In the section 'Comments' some of the most frequently occurring mistakes will be mentioned.

Two more codes are added:

Medit.Area. for publications concerning the whole Mediterranean Area, instead of listing the individual areas separately.

REVIEW for publications which are merely reviews of other publications.

In the previous issues several mistakes have been made. The most serious is that the validations in the first issue (A27-7 and A27-8) are invalid according to the new rules of the ICBN, which I did not know of at that time (for detailes see 'Comments'). This was pointed out to me by people of the International Bureau for Plant Taxonomy and Nomenclature in Utrecht. They have also otherwise advised me on nomenclatural problems, for which I am most grateful.

Two new combinations were introduced in the plate explanations of the publication by Perch-Nielsen et al., 1978 (A25-8). These were overlooked, but are included now, with the appropriate code.

The other errata:

A5-8: replace vol.2(3) by vol.23
B9, Quadrum gartneri: add type species of Quadrum
B12, Prediscosphaera quadripunctata: add p.109
A15-9: replace pp.497-300 by pp.497-500
A18-9: add pp.79-107, 37 figs., 4 tbs.

With this issue of the INA Newsletter the references of 1976, 1977 and 1978 should be more or less complete. Should you know of publications that have not been included, please send me the reference, or better still, a copy or reprint.

A29

1	ANGELIER,J., BREBION,P., LAURIAT-RAGE,A. & MÜLLER,C. 1979 Late Cenozoic biostratigraphy and neotectonic evolution of Crete. -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol. Pays Hellén., tome hors série, vol.1, pp.9-17, 2 figs.	strat. TERT.U. Europe.E.
2	BACKMAN,J. 1978 Late Miocene - Early Pliocene nannofossil biochronology and biogeography in the Vera Basin, SE Spain. -Acta Univ. Stockh. / Stockh. Contr. Geol., vol.32(2), pp.93-114, + 2 pls., 5 figs., 2 tbs.	strat.syst. TERT.U. Europe.W. Atlantic.N. Mediterr. ECOL.
3	BALDI,T. 1979 Changes of Mediterranean (?Indopacific) and Boreal influences on Hungarian marine molluscfaunas since Kiscellian until Eggenburgian times; the stage Kiscellian. -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol. Pays Hellén., tome hors série, vol.1, pp.39-49, 3 figs.	strat. TERT. Europe.E.
4	BALDI-BEKE,M. & NAGYMAROSY,A. 1979 On the position of the Ottnangian and Karpatian regional stages in the Tertiary nannoplankton zonation. -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol. Pays Hellén., tome hors série, vol.1, pp.51-59, 2 figs.	strat.syst. TERT.U. Europe.E.
5	BALDSCHUHN,R. 1979 Stratigraphie und Verbreitung des Dan (Tertiär) in Nordwestdeutschland. -Z. dt. geol. Ges., vol.130(1), pp.201-209, 3 figs.	strat. TERT.L. Europe.W.
6	BARBIERI,F., IACCARINO,S. & ROSSI,U. 1976 Paleoecology of the Pliocene in the sites 62 and 63 D.S.D.P. (Leg 7 - Equatorial Western Pacific). -Univ. Studi Parma, Ist. Geol., 21+9 pp., 6 figs.	strat. TERT.U;QUAT. Pacific.C. ECOL.
7	BARBIERI,F., MORLOTTI,E., PALMIERI,C. et al. 1976 Biostratigraphy of the Izarôrene section in the Melilla Basin (NE Morocco). -Univ. Studi Parma, Ist. Geol., 21+10 pp, +3 pls., 4 figs., 2 tbs.	strat.(syst) TERT.U. Africa.N. Europe.W.
8	BARRIER,J. 1977 Study of the coccoliths and Nannoconus from the Taraises-Cupido shelf margin, Northern Mexico. -Texas Univ., Bur. Econ. Geol. Rep. Invest. no.89, pp.295-298, 3 pls., 3 tbs.	strat.syst. CRET.L. America.C. ECOL.
9	BARRIER,E., MÜLLER,C. & ANGELIER,J. 1979 Sur l'importance du Quaternaire ancien marin dans l'île de Karpathos (arc hellénique, Grèce) et ses implications tectoniques. -C.R. somm. Soc. Géol. Fr., 1979(4), pp.198-201, 2 figs.	strat. QUAT. Europe.E.

A30

1	BARRON,J.A. 1976 Revised Miocene and Pliocene diatom biostratigraphy of Upper Newport Bay, Newport Beach, California. -Mar. Micropal., vol.1, pp.27-63, 3 pls., 7 figs., 5 tbs.	(strat) TERT.U. America.N.
2	BENDA,L. & MEULENKAMP,J.E. 1979 Biostratigraphic correlations in the eastern Mediterranean Neogene. 5.Calibration of sporomorph associations, marine microfossil and mammal zones, marine and continental stages and the radiometric scale. -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol. Pays Hellén., tome hors série, vol.1, pp.61-70, 1 tb.	strat. TERT. Asia.SW. Europe.E.
3	BIZON,G. & MÜLLER,C. 1977 Remarks on some biostratigraphic problems in the Mediterranean Neogene. -In: Biju-Duval,B. & Montadert,L.: Int. Symp. Struct. Hist. Mediterr. Basins. Split (Yugoslavia), 25-29 Oct. 1976. Ed. Technip, Paris. pp.381-390, 6 figs.	strat. TERT.U;QUAT. Medit.Area. ECOL.
4	BIZON,G. & MÜLLER,C. 1979 Remarks on the Oligocene/Miocene boundary based on results obtained from the Pacific and the Indian Ocean. -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol. Pays Hellén., tome hors série, vol.1, pp.101-111, 2 figs.	strat. TERT. Atlantic.N. Indian.O. Pacific.C.
5	BIZON,G. & MÜLLER,C. 1979 Report of the working group on micropaleontology. -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol. Pays Hellén., tome hors série, vol.3, pp.1335-1364, 1 tb.	strat. TERT.U. Medit.Area
6	BIZON,G., MÜLLER,C. & VERGNAUD GRAZZINI,C. 1979 Paleoenvironmental conditions during the deposition of Late Miocene diatomaceous sediments in Morocco and Cyprus. -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol. Pays Hellén., tome hors série, vol.1, pp.113-128, 3 figs., 2 tbs.	strat. TERT.U. Asia.SW. Africa.N. ECOL.
7	BLACKWELDER,P.L., WEISS,R.E. & WILBUR,K.M. 1976 Effects of calcium, strontium, and magnesium on the coccolithophorid Cricosphaera (Hymenomonas) carterae. I. Calcification. -Mar. Biol., vol.34, pp.11-16, 3 figs., 2 tbs.	RECENT BIOL.
8	BLANC-VERNET,L., CHAMLEY,H. & ROBERT,C. 1979 Mineraux argileux et foraminifères dans le Pleistocène Inférieur de l'Ile de Zante (Grèce occidentale). -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol. Pays Hellén., tome hors série, vol.1, pp.129-138, 2 figs.	strat. QUAT. Europe.E.
9	BLANKLEY,W.F. & LEWIN,R.A. 1976 Temperature responses of a coccolithophorid, Cricosphaera carterae, measured in a simple and inexpensive thermal - gradient device. -Limnol. Oceanogr., vol.21(3), pp.457-462, 3 figs., 1 tb.	RECENT BIOL.

A31

1	BLASIO,I.de, LIMA,A., PERRONE,V. & RUSSO,M. 1978 Studio petrografico e biostratigrafico di una sezione della formazione del Saraceno nell' area tipo (Calabria nord-orientale). -Riv. Ital. Paleont., vol.84(4), pp.947-972, 10 figs., 2 tbs.	strat. TERT.L. Europe.W.
2	BOLLI,H.M. & SAUNDERS,J.B. 1977 Introduction to stratigraphy and paleontology. -In: Heirtzler,J.R., Bolli,H.M. et al.: Indian Ocean geology and biostratigraphy (book). Amer. Geophys. Union, pp.311-324, 5 figs.	strat. JURA.U;CRET. TERT.QUAT. Indian Oc. ECOL.
3	BOWDLER,J.L. & ROTH,P.H. 1979 Mid-Cretaceous calcareous nannoplankton paleobiogeography and paleo-oceanography of Atlantic Ocean. -Ann. Mtg. AAPG-SEPM abstr., AAPG Bull., vol.63(3), p.423.	abstr. CRET.L.M. Atlantic. ECOL.DIAG.
4	BROMLEY,R.G. 1979 Chalk and bryozoan limestone: facies, sediments, and depositional environment. -In: Birkelund,T. & Bromley,R.G.: Cretaceous/Tertiary boundary events -symposium. I.The Maastrichtian and Danian of Denmark. pp.16-32, 6 figs.	(syst) CRET.TERT. boundary Europe.W. SEDIM.
5	BUKRY,D. 1976 Coccolith stratigraphy of Manihiki Plateau, Central Pacific, Deep Sea Drilling Project, Site 317. -In: Schlanger,S.O., Jackson,E.D. et al.: Init. Rep. DSDP, vol.33, pp.493-501, 1 pl., 5 figs.	strat.syst. CRET.TERT. QUAT. Pacific.C.
6	BUKRY,D. 1976 Silicoflagellate and coccolith stratigraphy, southeastern Pacific Ocean, Deep Sea Drilling Project Leg 34. -In: Yeats,R.S., Hart,S.R. et al.: Init. Rep. DSDP, vol.34, pp.715-735, 4 pls., 7 figs.	strat. TERT.QUAT. Pacific.C.
7	BUSER,S. & PAVŠIČ,J. 1976 Paleocene flysh beneath the Nanos (Western part of Slovenia) (NW of Yugoslavia). -Bull. Scient., sect.A, vol.21(10-12), pp.198-200, 1 fig.	strat. TERT.L. Europe.E.
8	BUSER,S. & PAVŠIČ,J. 1978 Spodnjekredni nanoplankton med Sevnico in Brestanico. (Lower Cretaceous nannoplankton between Sevnica and Brestanica). -Rudarsko - Metalurški Zbornik 1978(2-3), pp.199-205, 1 pl. 2 figs. (In Yugoslav, English summary).	strat(syst) CRET.M. Europe.E.
9	BUSER,S., PAVŠIČ,J. & RADOIČIČ,R. 1979 Spodnjekredne plasti v Bohinju.(Lower Cretaceous beds in Bohinj). -Rudarsko-Metalurški Zbornik vol.26(4), pp.385-393, 1 pl. 2 figs. (In Yugoslav, English summary).	strat(syst) CRET.L. Europe.E.

A32

1	BYSTRICKA,H. 1976 Calcareous nannoplankton of the Marthasterites tribrachiatus Zone from the Lower Eocene sediments of Slovakia. -Geol. Zbornik -Geol. Carpat., vol.27(2), pp.273-298, 11 pl.	strat.syst. TERT.L. Europe.E.
2	BYSTRICKA,H. 1976 Kalk-Nannoplankton der Heliolithus riedeli Biofazialzone in den Westkarpaten. -Acta Geol. Geogr. Univ. Comenianae; Geologica nr.30, pp.51-66 +pls.23-32.	strat.syst. TERT.L. Europe.E.
3	BYSTRICKA,H. 1979 Rupelian in the Banska Bystrica Basin. -Geol. Zbornik -Geol. Carpat., vol.30(1), pp.109-122, 8 pls., 1 fig.	strat.(syst) TERT.L. Europe.E.
4	CAVELIER,C. & POMEROL.,C. 1976 Les rapports entre le Bartonien et le Priabonien. Incidence sur la position de la limite Éocène moyen - Éocène supérieur. -C.R. somm. Soc. Géol. Fr., 1976(2), pp.49-51, 1 tb.	strat. TERT.L. Europe.W.
5	ČEPEK,P. & MOORKENS,T. 1979 Cretaceous/Tertiary boundary and Maastrichtian - Danian biostratigraphy (coccoliths and foraminifera) in the Maastrichtian type area. -In: Christensen,W.K. & Birkelund,T.: Cretaceous/Tertiary boundary events -symposium. II.Proceedings. pp.137-142.	strat. CRET.TERT. boundary Europe.W. ECOL.
6	CHERCHI,A., MARINI,A., MURRU,M. & ROBBA,E. 1978 Stratigrafia e paleoecologia del Miocene Superiore della Peninsola del Sinis (Sardegna occidentale). -Riv. Ital. Paleont., vol.84(4), pp.973-1036, pls.91-94, 10 figs.	strat. TERT.U. Europe.W.
7	CHI,W.R. 1979 A biostratigraphic study of the Late Neogene sediments in the Kaohsiung area based on calcareous nannofossils. -Proc. Geol. Soc. China, no.22, pp.121-144, 2 pls., 9 figs.	strat.(syst) TERT.U;QUAT. Asia.E.
8	CICHA,I. 1979 Report on the working group of the Paratethys CMNS. -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol. Pays Hellén., tome hors série, vol.3, pp.1411-1423.	strat. TERT.U. Europe. Russia.
9	CIESIELSKI,P.F. & WISE,S.W. 1977 Geologic history of the Maurice Ewing Bank of the Falkland Plateau (SW Atlantic sector of the Southern Ocean) based on piston and drill cores. -Mar. Geol., vol.25, pp.175-207, 9 figs., 2 tbs.	strat. CRET.TERT. Atlantic.S. ECOL.
10	CIMERMAN,F. & PAVŠIČ,J. 1979 Excursion S, Bled - Middle Oligocene. -16th Eur. Micropal. Coll., Ljubljana, pp.255-258, 1 fig.	strat. TERT.L. Europe.E.

A33

1	CITA,M.B., SESTINI,N.F., SALVATORINI,G. et al. 1979 Late Neogene sediments and fossils from the Malta escarpment and their geodynamic significance. -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol. Pays Hellén., tome hors série, vol.1, pp.273-283, 3 figs., 1 tb.	strat. TERT.U. Europe.W.
2	COLALONGO,M.L., DI GRANDE,A., D'ONOFRIO,S. et al. 1979 A proposal for the Tortonian/Messinian boundary. -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol., Pays Hellén., tome hors série, vol.1, pp.285-294.	strat. TERT.U. Europe.W.
3	CONLEY,S.M. 1979 Recent coccolithophores from the Great Barrier Reef - Coral Sea region. -Micropal., vol.25(1), pp.20-43, 6 pls., 6 figs.	syst. QUAT. Pacific.CS. ECOL.
4	COUVERING,J.A.van, BERGGREN,W.A., DRAKE,R.E. et al. 1976 The terminal Miocene event. -Mar. Micropal., vol.1, pp.263-286, 4 figs.	strat. TERT.U. Mediterr. Pacific.S. Europe.W.
5	DATTA,A.K. & SINGH,P. 1976 Nannoplankton from the Late Early Pliocene subsurface formation of the Bombay offshore region. -Proc. VI Indian Coll. Micropal. Strat., pp.40-52, 3 pls., 3 figs.	strat.syst. TERT.U. Indian.Oc. Asia.E.
6	DONNELLY,T., FRANCHETEAU,J., BRYAN,W. et al. 1980 Site reports. -In: Donnelly,T., Francheteau,J. et al., Init. Rep. DSDP vols.51,52,53, pt.1 (1979), pp.23-626.	strat. CRET.M. TERT.U;QUAT. Atlantic.C.
7	DROOGER,C.W., MEULENKAMP,J.E., SCHMIDT,R.R. et al. 1976 The Paleogene - Neogene boundary. -Proc. Kon. Ned. Akad. Wetensch. A'dam, ser.B, vol.79(5), pp.317-329.	strat. TERT. Europe.W.
8	DUDLEY,W.C. & GOODNEY,D.E. 1979 Oxygen isotope content of coccoliths grown in culture. -Deep-Sea Res., vol.26A(5), pp.495-503, 3 figs.	RECENT BIOL.
9	EDWARDS,A.R. 1977 Calcareous nannofossils from the Ohara Graben and Mt Miroroa. -Appendix to: Beu,A.G. et al., Nukumaruan records of the Subantarctic scallop Chlamys delicatula and crab Jacquinotia edwardsii in central Hawke's Bay; N.Z. J. Geol. Geophys., vol.20(2), pp.246-248, 2 tbs.	strat. TERT.QUAT. Australasia. ECOL.
10	ELLIS,H. 1979 Neogene nannoplankton zonation in Eastern Mediterranean. -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol. Pays Hellén., tome hors série, vol.1, pp.391-401, 3 figs., 1 tb.	strat.syst TERT.U;QUAT. Mediterr. Europe.W.

A34

1	ELLIS,C.H. & LOHMAN,W.H. 1979 Neogene calcareous nannoplankton biostratigraphy in eastern Mediterranean. -Ann. Mtg. AAPG-SEPM, abstr., AAPG Bull., vol.63(3), pp.443-444.	abstr. strat. TERT.U;QUAT. Mediterr. ECOL.
2	EMERY,K.O. & HONJO,S. 1979 Surface suspended matter off western Africa: relations of organic matter, skeletal debris and detrital minerals. -Sedimentology, vol.26, pp.775-794.	RECENT Atlantic SEDIM.
3	FEAZEL,C.T., KEANY,J. & PETERSON,R.M. 1979 Generation and occlusion of porosity in chalk reservoirs. -Ann. Mtg. AAPG-SEPM, Abstr., AAPG Bull., vol.63(3), pp.448-449.	abstr. DIAG.
4	FLORIS,S. 1979 Guide to Fakse Limestone Quarry. -In: Birkelund,T. & Bromley,R.G.: Cretaceous/Tertiary boundary events -symposium. I.The Maastrichtian and Danian of Denmark. pp.152-163, 11 figs.	strat. CRET.TERT. boundary Europe.W.
5	FONSECA,B. 1978 Notes sur la géologie et la paléontologie du Miocène de Lisbonne. -Ciências da Terra, vol.3 (1977), pp.61-99, 9 pls., 4 figs., 1 tb.	strat.syst. TERT.U. Europe.W.
6	FOURNIÉ,D. 1978 Nomenclature lithostratigraphique des séries du Crétacé Supérieur au Tertiaire de Tunisie. -Bull. Cent. Rech. Explor.-Prod. Elf-Aquitaine, vol.2(1), pp.97-148, 18 figs.	strat. TERT.L. Africa.N.
7	GAARDER,K.R. & HEIMDAL,B.R. 1977 A revision of the genus Syracosphaera LOHMANN (Coccolithineae). -'Meteor' Forsch.-Ergebn. Ser.D, no.24, pp.54-71, 8 pls.	syst. RECENT Oceans
8	GAEMERS,P.A.M. 1978 Biostratigraphy, palaeoecology and palaeogeography of the mainly marine Ager Formation (Late Paleocene - Early Eocene) in the Tremp Basin, South-Central Pyrenees, Spain. -Leidse Geol. Meded., vol.51(2), pp.151-231, 8 pls., 13 figs., 2 tbs., 6 Encl.	strat. TERT.L. Europe.W.
9	GARTNER,S. 1979 Terminal Cretaceous extinctions: a comprehensive mechanism. -In: Christensen,W.K. & Birkelund,T.: Cretaceous/Tertiary boundary events. -symposium. II.Proceedings. pp.26-28.	CRET.U. TERT.L. ECOL.
10	GARTNER,S., CHEN,M.P. & STANTON,R.J. 1979 Late Neogene history in the American Mediterranean. -VIIth Int. Congr. Medit. Neogene, Athens 1979, Ann. Géol. Pays Hellén., tome hors série, vol.1, pp.425-437, 3 figs.	strat. TERT.U. America.N. ECOL.

A35

1	GARTNER,S. & KEANY,J. 1979 The coccolith succession across the Cretaceous/Tertiary boundary in the subsurface of the North Sea (Ekofisk). -In: Christensen,W.K. & Birkelund,T.: Cretaceous/Tertiary boundary events. -symposium. II.Proceedings. pp.103-105, 1 tb.	strat. CRET.TERT. boundary Europe.W. ECOL.
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B43 Ahmuellerella granulata (STOVER 1966) SHUMENKO 1976 non REINHARDT 1965; p.55 (ex Parhabdolithus). Illegitimate ICBN Art.64 — A44-1 *C-1

Ahmuellerella mirabilis (PERCH-NIELSEN 1968) SHUMENKO 1976; p.55 (ex Reinhardtites). — A44-1

Angulofenestrellithus numerosus (GORKA 1957) SHUMENKO 1976; p.52 (ex Discolithus). — A44-1

Biscutum paenepelagicum (STOVER 1966) SHUMENKO 1976; p.33 (ex Discorhabdus). — A44-1

Biscutum parvulum ROMEIN 1979; pp.96,97, pl.2, fig.1; Spain, L.Paleocene. — A42-5

Biscutum perforatum (SHUMENKO 1969) SHUMENKO 1976; p.33 (ex Discorhabdus). — A44-1

Biscutum spatiosum (SHUMENKO 1969) SHUMENKO 1976; p.33 (ex Discorhabdus). — A44-1

Biscutum? tenuiculum OKADA & THIERSTEIN 1979; pp.521,522, pl.9, fig.5; N.Atlantic, Danian (Paleocene) — A39-9 *C-5

Braarudosphaera alta ROMEIN 1979; p.94, pl.2, fig.3; Spain, L.Paleocene. — A42-5

Broinsonia clivosa (SHUMENKO 1969) SHUMENKO 1976; p.36 (ex Arkhangelskiella). — A44-1

Broinsonia erratica (STOVER 1966) SHUMENKO 1976; p.36 (ex Arkhangelskiella). — A44-1

Caneosphaera GAARDER & HEIMDAL 1977; p.64, type species: Syracosphaera halldalii GAARDER 1971. — A34-7

Caneosphaera halldalii (GAARDER 1971) GAARDER & HEIMDAL 1977; pp.64,66 (ex Syracosphaera). type species of Caneosphaera. — A34-7

Caneosphaera molischii (SHILLER 1925) GAARDER & HEIMDAL 1977; pp.66,68 (ex Syracosphaera). — A34-7

Chiastozygus anceps (GORKA 1957) SHUMENKO 1976; p.46 (ex Discolithus). — A44-1

Chiastozygus fessus (STOVER 1966) SHAFIK 1978 ex SHAFIK 1979; p.c-5 (ex Discolithus). — A43-9

Chiastozygus trabeculatus (GORKA 1957) SHUMENKO 1976; p.47 (ex Discolithus). — A44-1

B44 | Coccolithus andamanensis SINGH 1976; In: Singh,P. & Vimal, K.P.; p.31. Invalid ICBN Art.32. | A44-8 *C-2

Coccolithus fenestratus (DEFLANDRE & FERT 1954) WISE 1976; In: Wise,S.W. & Constans,R.E., p.145 (ex Discolithus). | A47-7

Corollithion transversum (LYUL'EVA 1969) SHUMENKO 1976; p.69 (ex Dictyolithus). | A44-1

Coronosphaera GAARDER & HEIMDAL 1977; pp.58,60. type species: Syracosphaera mediterranea LOHMANN 1902. | A34-7

Coronosphaera binodata (KAMPTNER 1927) GAARDER & HEIMDAL 1977; p.62 (ex Syracosphaera mediterranea var.). | A34-7

Coronosphaera maxima (HALLDAL & MARKALI 1955) GAARDER & HEIMDAL 1977; p.62 (ex Syracosphaera). | A34-7

Coronosphaera mediterranea (LOHMANN 1902) GAARDER & HEIMDAL pp.60,62 (ex Syracosphaera). type species of Coronosphaera. | A34-7

Crepidolithus cruciatus PERCH-NIELSEN 1979; p.124, pl.2, fig.12; Denmark, Danian (Paleocene). | A40-4

Crepidolithus dirimosus PERCH-NIELSEN 1979; p.124, pl.2, fig.16; Denmark, Danian (Paleocene). | A40-4

Cretarhabdus pchalekii (REINHARDT 1964) SHUMENKO 1976; p.58 (ex Cribrosphaerella). | A44-1

Cruciplacolithus cribellus (BRAMLETTE & SULLIVAN 1961) ROMEIN 1979; pp.103,104 (ex Coccolithites). | A42-5

Cruciplacolithus edwardsii ROMEIN 1979; p.101, pl.2, fig.7; Spain, L.Paleocene. | A42-5

Cruciplacolithus eodelus (BUKRY & PERCIVAL 1971) ROMEIN 1979; p.103 (ex Campylosphaera). | A42-5

Cruciplacolithus frequens (PERCH-NIELSEN 1977) ROMEIN 1979; p.103 (ex Chiasmolithus). | A42-5

Cruciplacolithus latipons ROMEIN 1979; p.102, pl.9, fig.7; Spain, Paleocene. | A42-5

Cyclagelosphaera alta PERCH-NIELSEN 1979; p.125, pl.3, fig.7; Denmark, Danian (Paleocene). | A40-4

Cycloplacolithella subpertusa (HAY & MOHLER 1967) BYSTRICKA 1976; pp.56,57 (ex Ericsonia). | A32-2

Diazomatolithus pulcher (SHUMENKO 1969) SHUMENKO 1976; p.34 (ex Cyclolithus). | A44-1

B45 Discoaster bramlettei (BUKRY & PERCIVAL 1971) ROMEIN 1979 non MARTINI 1959; pp.159,160 (ex Discoasteroides). Illegitimate ICBN Art.64. A42-5 *C-3

Discoaster tristellifer BUKRY 1976; p.499, pl.1, figs.1-7; Indian Ocean, L.Pliocene. A31-5

Discolithus neillensis SINGH 1976; In: Singh,P. & Vimal,K.P. p.31. Invalid ICBN Art.32. A44-8 *C-2

Discolithus pantii SINGH 1976; In: Singh,P. & Vimal,K.P. p.31. Invalid ICBN Art.32. A44-8 *C-2

Discorhabdus striatus MOSHKOVITZ & EHRLICH 1976; p.14, pl.7, figs.3,4; Israel, L.Jura. A38-5

Ericsonia eopelagica (BRAMLETTE & RIEDEL 1954) ROMEIN 1979; p.108 (ex Tremalithus). A42-5

Ericsonia formosa (KAMPTNER 1963) ROMEIN 1979; p.111 (ex Cyclococcolithus). A42-5

Ericsonia pacifica (BUKRY 1971) ROMEIN 1979; pp.110-111; (ex Striatococcolithus). A42-5

Ericsonia universa (WIND & WISE 1976) ROMEIN 1979; pp.109-110 (ex Heliolithus). A42-5

Ethmorhabdus asper (STRADNER 1963) SHUMENKO 1976; p.61 (ex Discolithus). A44-1

Fasciculithus bitectus ROMEIN 1979; pp.149-150, pl.9, fig.15; Israel, L.Paleocene. A42-5

Fasciculithus magnicordis ROMEIN 1979; p.149, pl.9, fig.12; Spain, L.Paleocene. A42-5

Heliolithus elegans (ROTH 1973) ROMEIN 1979; p.156 (ex Bomolithus). A42-5

Heliolithus megastypus (BRAMLETTE & SULLIVAN 1961) ROMEIN 1979; pp.157-158 (ex Discoasteroides). A42-5

Hexalithus magharensis MOSHKOVITZ & EHRLICH 1976; pp.16,17, pl.8, figs.14,15; Sinai, M.Jura. A38-5

Isocrystallithus VERBEEK 1976; pp.77,78. type species: Isocrystallithus compactus VERBEEK 1976. A46-6

Isocrystallithus compactus VERBEEK 1976; p.78, pl.2, fig.3; France, M.Cenomanian. type species of Isocrystallithus. A46-6

B46 Markalius apertus PERCH-NIELSEN 1979; p.128, pl.3, fig.16; Denmark, Danian (Paleocene). A40-4

Marthasterites tenuis SHUMENKO 1976; p.74, pl.28, fig.7; USSR, L.Maastrichtian. A44-1

Neocrepidolithus ROMEIN 1979; p.183. type species: Crepidolithus neocrassus PERCH-NIELSEN 1968. A42-5

Neocrepidolithus fossus (ROMEIN 1977) ROMEIN 1979; pp.183, 184 (ex Crepidolithus). A42-5

Neocrepidolithus neocrassus (PERCH-NIELSEN 1968) ROMEIN 1979; p.183 (ex Crepidolithus). type species of Neocrepidolithus. A42-5

Octolithus ROMEIN 1979; p.185. type species: Tetralithus multiplus PERCH-NIELSEN 1973. A42-5

Octolithus multiplus (PERCH-NIELSEN 1973) ROMEIN 1979; p.185 (ex Tetralithus). type species of Octolithus. A42-5

Oolithotus perplexus (BRAMLETTE & RIEDEL 1954) CONLEY & BURNS 1979; In: Conley,S.M., p.29; (ex Discoaster). A33-3

Parhabdolithus minimus (REINHARDT 1964) SHUMENKO 1976; p.53 (ex Kamptnerius). A44-1

Parhabdolithus neocrassus (PERCH-NIELSEN 1968) SHUMENKO 1976; p.53 (ex Crepidolithus). A44-1

Placozygus sigmoides (BRAMLETTE & SULLIVAN 1961) ROMEIN 1979; pp.117,118 (ex Zygodiscus). A42-5

Podorhabdus elegans SHUMENKO 1976; pp.59,60, pl.21, fig.6; USSR, L.Maastrichtian. A44-1

Podorhabdus noeliae (PERCH-NIELSEN 1968) SHUMENKO 1976; p.60 (ex Dodekapodorhabdus). A44-1

Podorhabdus roeglii (THIERSTEIN 1971) SHUMENKO 1976; p.60 (ex Bipodorhabdus). A44-1

Pontosphaera bicaveata (PERCH-NIELSEN 1967) ROMEIN 1979; p.179 (ex Discolithina). A42-5

Pontosphaera duocava (BRAMLETTE & SULLIVAN 1961) ROMEIN 1979; p.177 (ex Discolithus). A42-5

Pontosphaera exilis (BRAMLETTE & SULLIVAN 1961) ROMEIN 1979; p.179 (ex Discolithus). A42-5

Pontosphaera fimbriata (BRAMLETTE & SULLIVAN 1961) ROMEIN 1979; p.180 (ex Discolithus). A42-5

B47 Pontosphaera formosa (BUKRY & BRAMLETTE 1969) ROMEIN 1979; p.181 (ex Syracosphaera). A42-5

Pontosphaera obliquipons (DEFLANDRE 1954) ROMEIN 1979; p.180 (ex Discolithus). A42-5

Pontosphaera prava (LOCKER 1967) ROMEIN 1979; p.178 (ex Transversopontis). A42-5

Pontosphaera pulcheroides (SULLIVAN 1964) ROMEIN 1979; p.179 (ex Discolithus). A42-5

Pontosphaera pulchra (DEFLANDRE 1954) ROMEIN 1979; p.178 (ex Discolithus). A42-5

Pontosphaera rimosa (BRAMLETTE & SULLIVAN 1961) PERCH-NIELSEN ET AL. 1978; p.394 (ex Discolithus). A25-8

Pontosphaera scissura (PERCH-NIELSEN 1971) ROMEIN 1979; p.180 (ex Discolithina). A42-5

Pontosphaera versa (BRAMLETTE & SULLIVAN 1961) PERCH-NIELSEN ET AL. 1978; p.394 (ex Discolithus). A25-8

Pontosphaera versa (BRAMLETTE & SULLIVAN 1961) ROMEIN 1979; p.176 (ex Discolithus). A42-5
Combination had already been introduced .

Prediscosphaera intercisa (DEFLANDRE 1954) SHUMENKO 1976; p.62 (ex Rhabdolithus). A44-1

Prediscosphaera solida (SHUMENKO 1971) SHUMENKO 1976; p.62 (ex Deflandrius). A44-1

Prinsius petalosus (ELLIS & LOHMAN 1973) ROMEIN 1979; p.120 (ex Toweius). A42-5

Prinsius rosenkrantzii PERCH-NIELSEN 1979; pp.129,130, pl.4, fig.4; Denmark, Danian (Paleocene). A40-4 *C-5

Pseudotriquetrorhabdulus WISE 1976; In: Wise,S.W. & Constans,R.E., p.154. type species: Triquetrorhabdulus inversus BUKRY & BRAMLETTE 1969. A47-7

Pseudotriquetrorhabdulus inversus (BUKRY & BRAMLETTE 1969) WISE 1976; In: Wise,S.W. & Constans,R.E., p.154. type species of Pseudotriquetrorhabdulus. A47-7

Reinhardtites biperforatus (GARTNER 1968) SHAFIK 1978 ex SHAFIK 1979; p.C5 (ex Zygodiscus). A43-9

Reticulofenestra gelida (GEITZENAUER 1972) BACKMAN 1978; p.112 (ex Coccolithus). A29-2

B48 Reticulofenestra haqii BACKMAN 1978; pp.110,111, pl.1, figs.1-4; Spain, U.Miocene. A29-2

Rhomboaster bitrifida ROMEIN 1979; p.191, pl.7, fig.4; Spain, U.Paleocene. A42-5

Rhomboaster intermedia ROMEIN 1979; pp.190,191, pl.10, fig. 7; Spain, U.Paleocene. A42-5

Rhombozygus SHUMENKO 1976; p.51. type species: Zygolithus egregius SHUMENKO 1969. A44-1

Rhombozygus egregius (SHUMENKO 1969) SHUMENKO 1976; p.51 (ex Zygolithus). type species of Rhombozygus. A44-1

Rhombozygus elongatus (STOVER 1966) SHUMENKO 1976; p.51 (ex Parhabdolithus). A44-1

Rhombozygus parvus SHUMENKO 1976; p.51, pl.16, fig.8; USSR, Cretaceous. A44-1

Rhombozygus tarboulensis (SHAFIK & STRADNER 1971) SHUMENKO 1976; p.52 (ex Zygodiscus). A44-1

Rucinolithus stellatus (SHUMENKO 1969) SHUMENKO 1976; p.79 (ex Coccolithites). A44-1

Schizosphaerella astraea MOSHKOVITZ 1979; pp.458,459, pl.2, figs.1,2,4; England, L.Pliensbachian (Jura). A38-4

Sphenolithus verensis BACKMAN 1978; pp.111,112, pl.2, figs. 4-6; Spain, U.Miocene. A29-2

Stephanolithion achylosum (STOVER 1966) SHUMENKO 1976; p.66 (ex Chiphragmalithus). A44-1

Stephanolithion biarcus (BUKRY 1969) SHUMENKO 1976; p.66 (ex Cylindralithus). A44-1

Syracosphaera elatensis WINTER 1979; In: Winter,A., Reiss, Z. & Luz,B., pp.207,208, pl.3, fig.12; Gulf of Elat, Rec. A47-5

Tergestiella reinhardtii (PERCH-NIELSEN 1968) SHUMENKO 1976; p.27 (ex Markalius). A44-1

Tergestiella rotaclypeata (BUKRY 1969) SHUMENKO 1976; p.27 (ex Cyclagelosphaera). A44-1

Tetralithus kamptneri (BRAMLETTE & MARTINI 1964) VERBEEK 1976; p.146 (ex Ceratolithoides). A46-7

Thoracosphaera arabianensis DATTA & SINGH 1976; p.48, pl.3, figs.1,2; India, L.Pliocene. A33-5

Thoracosphaera tarapurensis DATTA & SINGH 1976; pp.48,49, pl.2, figs.9,10,12; India, L.Pliocene. A33-5

B49

Toweius gammation (BRAMLETTE & SULLIVAN 1961) ROMEIN 1979; p.126 (ex Coccolithites).	A42-5
Toweius magnicrassus (BUKRY 1971) ROMEIN 1979; p.126 (ex Coccolithus).	A42-5
Toweius pertusus (SULLIVAN 1965) ROMEIN 1979; pp.124,125 (ex Coccolithus).	A42-5
Toweius selandianus PERCH-NIELSEN 1979; p.132, pl.4, fig.20; Denmark, Selandian (Paleocene).	A40-4
Tribrachiatus nunnii (GARTNER 1971) ROMEIN 1979; p.194 (ex Marthasterites). Illegitimate ICBN Art.55.	A42-5 *C-4
Tribrachiatus spineus (SHAFIK & STRADNER 1971) ROMEIN 1979; p.193 (ex Marthasterites).	A42-5
Truncatoscaphus hexaporus MOSHKOVITZ & EHRLICH 1976; pp.8, 9, pl.1, fig.15; Israel, M.Jura.	A38-5
Truncatoscaphus octoporus MOSHKOVITZ & EHRLICH 1976; p.8, pl.1, fig.13; Israel, U.Jura.	A38-5
Watznaueria dentata (SHUMENKO 1969) SHUMENKO 1976; p.26 (ex Coccolithites).	A44-1
Watznaueria hillii (BLACK 1964) SHUMENKO 1976; p.26 (ex Favocentrum).	A44-1
Watznaueria praetexta (CARATINI 1963) SHUMENKO 1976; p.26 (ex Ellipticolithites).	A44-1
Zygodiscus chelmiensis (GORKA 1963) SHUMENKO 1976; p.42 (ex Zygolithus).	A44-1
Zygodiscus clausus ROMEIN 1979; pp.130,131, pl.10, fig.3; Spain, M.Paleocene.	A42-5
Zygodiscus inconditus (LYUL'EVA 1967) SHUMENKO 1976; p.43 (ex Zygrhablithus).	A44-1
Zygodiscus lobatulus (LYUL'EVA 1967) SHUMENKO 1976; p.44 (ex Tranolithus).	A44-1
Zygodiscus spissus (SHUMENKO 1969) SHUMENKO 1976; p.44 (ex Zygolithus).	A44-1
Zygodiscus stabilis (GORKA 1957) SHUMENKO 1976; p.44 (ex Discolithus).	A44-1
Zygodiscus variatus (CARATINI 1964) SHUMENKO 1976; p.45 (ex Discolithus).	A44-1

Species names in alphabethical order.

achylosum, Stephanolithion
alta, Braarudosphaera
alta, Cyclagelosphaera
anceps, Chiastozygus
andamanensis, Coccolithus *
apertus, Markalius
arabianensis, Thoracosphaera
asper, Ethmorhabdus
astrea, Schizosphaerella
biarcus, Stephanolithion
bicaveata, Pontosphaera
binodata, Coronosphaera
biperforatus, Reinhardtites
bitectus, Fasciculithus
bitrifida, Rhomboaster
bramlettei, Discoaster *
chelmiensis, Zygodiscus
clausus, Zygodiscus
clivosa, Broinsonia
compactus, Isocrystallithus
cribellus, Cruciplacolithus
cruciatus, Crepidolithus
dentata, Watznaueria
dirimosus, Crepidolithus
duocava, Pontosphaera
edwardsii, Cruciplacolithus
egregius, Rhombozygus
elatensis, Syracosphaera
elegans, Heliolithus
elegans, Podorhabdus
elongatus, Rhombozygus
eodelus, Cruciplacolithus
eopelagica, Ericsonia
erratica, Broinsonia
exilis, Pontosphaera
fenestratus, Coccolithus
fessus, Chiastozygus
fimbriata, Pontosphaera
formosa, Ericsonia
formosa, Pontosphaera
fossus, Neocrepidolithus
frequens, Cruciplacolithus
gammation,Toweius
gelida, Reticulofenestra
granulata, Ahmuellerella *
halldalii, Caneosphaera
haqii, Reticulofenestra
hexaporus, Truncatoscaphus
hillii, Watznaueria
inconditus, Zygodiscus
intercisa, Prediscosphaera
intermedia, Rhomboaster
inversus, Pseudotriquetrorhabdulus
kamptneri, Tetralithus
latipons, Cruciplacolithus
lobatulus, Zygodiscus
magharensis, Hexalithus
magnicordis, Fasciculithus
magnicrassus, Toweius
maxima, Coronosphaera
mediterranea, Coronosphaera
megastypus, Heliolithus
minimus, Parhabdolithus
mirabilis, Ahmuellerella
molischii, Caneosphaera
multiplus, Octolithus
neillensis, Discolithus *
neocrassus, Neocrepidolithus
neocrassus, Parhabdolithus
noeliae, Podorhabdus
numerosus, Angulofenestrellithus
nunnii, Tribrachiatus *
obliquipons, Pontosphaera
octoporus, Truncatoscaphus
pacifica, Ericsonia
paenepelagicum, Biscutum
pantii, Discolithus *
parvulum, Biscutum
parvus, Rhombozygus
pchalekii, Cretarhabdus
perforatum, Biscutum
perplexus, Oolithotus
petalosus, Prinsius
pertusus, Toweius
prava, Pontosphaera
praetexta, Watznaueria
pulcher, Diazomatolithus
pulcheroides, Pontosphaera
pulchra, Pontosphaera
reinhardtii, Tergestiella
rimosa, Pontosphaera
roeglii, Podorhabdus
rosenkrantzii, Prinsius
rotaclypeata, Tergestiella
scissura, Pontosphaera
selandianus, Toweius
sigmoides, Placozygus
solida, Prediscosphaera
spatiosum, Biscutum
spineus, Tribrachiatus
spissus, Zygodiscus
stabilis, Zygodiscus
stellatus, Rucinolithus
striatus, Discorhabdus

*: invalid

subpertusa, Cycloplacolithella
tarapurensis, Thoracosphaera
tarboulensis, Rhombozygus
tenuiculum, Biscutum?
tenuis, Marthasterites
trabeculatus, Chiastozygus
transversum, Corollithion
tristellifer, Discoaster
universa, Ericsonia
variatus, Zygodiscus
verensis, Sphenolithus
versa, Pontosphaera

New genus names:

Caneosphaera, Coronosphaera, Isocrystallithus, Neocrepidolithus, Octolithus, Pseudotriquetrorhabdulus, Rhombozygus.

+ +

COMMENTS

1- Ahmuellerella granulata (STOVER 1966) SHUMENKO 1976 non REINHARDT 1965.

By transferring Parhabdolithus granulatus to the genus Ahmuellerella, Shumenko created a homonym, which is illegitimate according to ICBN Art.64.

2- Coccolithus andamanensis SINGH 1976; Discolithus neillensis SINGH 1976; Discolithus pantii SINGH 1976.

These names were merely mentioned with the addition n.sp., but without description or picture, as required by ICBN Arts.32 and 36.

3- Discoaster bramlettei (BUKRY & PERCIVAL 1971) ROMEIN 1979 non MARTINI 1959.

By transferring Discoasteroides bramlettei to the genus Discoaster, Romein created a homonym, which is illegitimate according to ICBN Art.64.

4- Tribrachiatus nunnii (GARTNER 1971) ROMEIN 1979

In 1959 Deflandre introduced Marthasterites furcatus var. bramlettei, applying the Zoological Code. In 1960 Marthasterites bramlettei was introduced by Brönnimann & Stradner. According to Loeblich & Tappan 1966, p.148, this name is invalid because it is in conflict with ICZN Art.57. However, a name can be judged by the ICZN only if this code was also applied in the publication concerned. In the publication there is no indication whether the zoological or the botanical rules were used. According to Stradner (pers. comm., 1980) he was more in favour of a third kingdom, protista, and therefore avoided to choose between the botanical and zoological rules. In his previous publications he used the ICZN, in his later publications the ICBN. Therefore, one can not claim that the zoological rules were used, and since we are dealing with algae, the botanical rules should be applied. According to the ICBN Art.64.1 the species is valid. Consequently, when Gartner in 1971 introduced Marthasterites nunnii as a nomen novum for M. bramlettei, he introduced a synonym, and therefore Tribrachiatus nunnii is also illegitimate, and should be replaced by Tribrachiatus bramlettei.

Loeblich & Tappan do not agree with this argumentation, and maintain that Brönnimann & Stradner introduced a junior homonym (pers. comm. 1980).

5- Prinsius rosenkrantzii PERCH-NIELSEN 1979

According to K. Perch-Nielsen, this species is a junior synonum (by a few months) of Biscutum tenuiculum OKADA & THIERSTEIN 1979.

6- Specific epithets with the wrong termination are listed in the corrected version, in agreement with ICBN Arts. 32.4 and 73.10. Most mistakes are made against Rec.73C, like for instance 'noelii' instead of 'noeliae' or 'reinhardti' instead of 'reinhardtii'.

A specific epithet should agree gramatically with the generic name only if it is adjectival in form. In other words: if a specific epithet is a substantive (a noun), it can not change its termination. For instance: Micula murus (murus = wall), Reticulofenestra umbilicus (umbilicus = nave). For this reason a 'derivatio nominis' is most usefull, as very few people can be persuaded to use a Latin dictionary.

7- Helicopontosphaera inversa (A27-7) and Florisphaera profunda var. elongata (A27-8)

Both validations are invalid according to Art.45 of the new Botanical Code. The first part of this article is the same as it was:" The date of a name or of an epithet is that of its valid publication. When the various conditions for valid publication are not simultaneously fulfilled, the date is that on which the last is fulfilled." So the validations would have been correct according to this rule. But there is an addition in the new code:" A name published on or after 1 Jan. 1973 for which the variuous conditions for valid publication are not simultaneously fulfilled is not validly published unless a full and direct reference is given to the places where these requirements were previously fulfilled." Which means that the exact page should have been added in the same way as is required for the introduction of a new combination.

VALIDATION OF HELICOPONTOSPHAERA INVERSA (2)

by S. Gartner

It has been brought to my attention that the validation of Helicopontosphaera inversa GARTNER in the INA Newsletter vol. 1, p.C-2, does not fulfill the requirements of ICBN Art. 45. Therefore, the name is herein validated.

Helicopontosphaera inversa GARTNER
Description: Gartner 1977, p.23
Holotype : Gartner 1977, pl.1, figure 5a,b,c.

References:

Gartner,S., 1977; Calcareous nannofossil biostratigraphy and revised zonation of the Pleistocene.
-Marine Micropaleontology, vol.2, pp.1-25
Gartner,S., 1979; Validation of Helicopontosphaera inversa.
-INA Newsletter vol.1, p.C-2

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Discoaster drieveri, nomen novum pro Discoaster bramlettei (BUKRY & PERCIVAL 1971) ROMEIN 1979 non MARTINI 1958.

By A.J.T. Romein

In my 1979 paper (pp.59,60), I transferred Discoasteroides bramlettei BUKRY & PERCIVAL 1971 to the genus Discoaster; Miss van Heck brought to my attention that I thus created a junior homonym (Discoaster bramlettei MARTINI, 1958). Therefore, Discoaster drieveri is hereby introduced as a nomen novum for this species.

References:

Bukry,D. & Percival,S.F., 1971; New Tertiary calcareous nannofossils.
-Tulane Studies in Geol. Pal., vol.8, pp.123-146
Martini,E., 1958; Discoasteriden und verwandte Formen im NW-deutschen Eozän (Coccolithophorida) 1.Taxionomische Untersuchungen.
-Senckenb. Leth., vol.39, pp.353-388.
Romein,A.J.T., 1979; Lineages in Early Paleogene calcareous nannoplankton.
-Utrecht Micropal. Bulletins, vol.22, pp.1-231.

SHORT NOTES

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Construction of the Paleontologic-Biostratigraphic Cretaceous File in the Federal Institute for Geosciences and Natural Resources, Hannover

P. ČEPEK, K. KÜHNE, R. WOLFART, M. ZÍKA

The large volume of fossiliferous core material of the Cretaceous System being accumulated by the Deep Sea Drilling Project and the great amount of information compiled by many different authors in the Initial Reports made it highly desirable to prepare a summary of the paleontological and biostratigraphical data in order to improve its accessibility for research and to allow the computer processing of the data. The data presented in the Cretaceous data file in Hannover covers all of the Cretaceous cores gathered in the oceans of the world from the DSDP-IPOD Project. It proved to be necessary to standardize the paleontological data from numerous authors. This difficult work has been done for calcareous nannoplankton, dinoflagellates (partly), radiolarians and diatoms. We are working on the foraminifera data. It is planned to enter Cretaceous continental data into the file, too; it then will be possible to correlate continental and oceanic data.

The information can be collected on so-called "OPSCAN sheets" (= form sheets for an OPSCAN reader) or on punch cards. This data is stored in the file PALBASE, generated and maintained by the data maintenance programs, is the starting point for a packet of evaluating and editing programs:

H1SEXT prints sample data (specified by punch cards) in word form, as many as necessary.

H1OUTP is the standard output program for PALBASE: it extracts all data for a site or fossil group in diagram form which makes it easy to recognize changes of biostratigraphical zones. It is possible to generate large diagrams by connecting several parts. The desired sites can be specified on punch cards. It is also possible to choose all sites of a fossil group or those situated within a specified rectangular area. At the end of the print output H1OUTP generates two line printer plots indicating the positions of all sites printed. The first plot represents the smallest rectangular area containing all printed sites. The second plot is a world map. This plot is then combined with a transparent foil showing the continental contours.

H1PULL can perform species retrievals from the data stored in PALBASE. It tests each sample for a specified species combination (logical term).
Example: 16 * 32 * 101 V 17 * -2
Meaning: all samples containing species 16, 32 and 101 and/or species 17 and not 2 shall be printed.

The output of H1PULL is also in diagram form. As in H1OUTP, geographical searching limits can be chosen. H1PULL produces two line printer plots, too. If a site contains a sample corresponding to the logical term, it will be represented by the character "+", otherwise "-".

H1BSTD prints out the names, sites, and samples in the file. The lists to be printed out can be specified; you can also decide whether the corresponding list will be alphabetically or numerically arranged. There are 6 categories of names stored in the file: locality, fossil group, species, observer, stratigraphic stages, and references. Finally, H1BSTD prints out a list of all sites stored in PALBASE and of the fossil groups these were examined for.

H1SED generates a stratigraphic profile for each site. This diagram contains a computed sedimentation rate for all stratigraphical stages identified in this site. (Fig. 2).

H1BGEO is a program for constructing diagrams of the stratigraphical and latitudinal distribution (including occurrence frequency) of a single species. (Fig. 1).

H1PUB provides the data stored in PALBASE in a form suitable for publication.

Any questions about the content of the Cretaceous data bank in Hannover or requests for data may be addressed to: Dr. Pavel ČEPEK, Federal Institute for Geosciences and Natural Resources, Postfach 510153, 3000 Hannover 51, F.R. Germany.

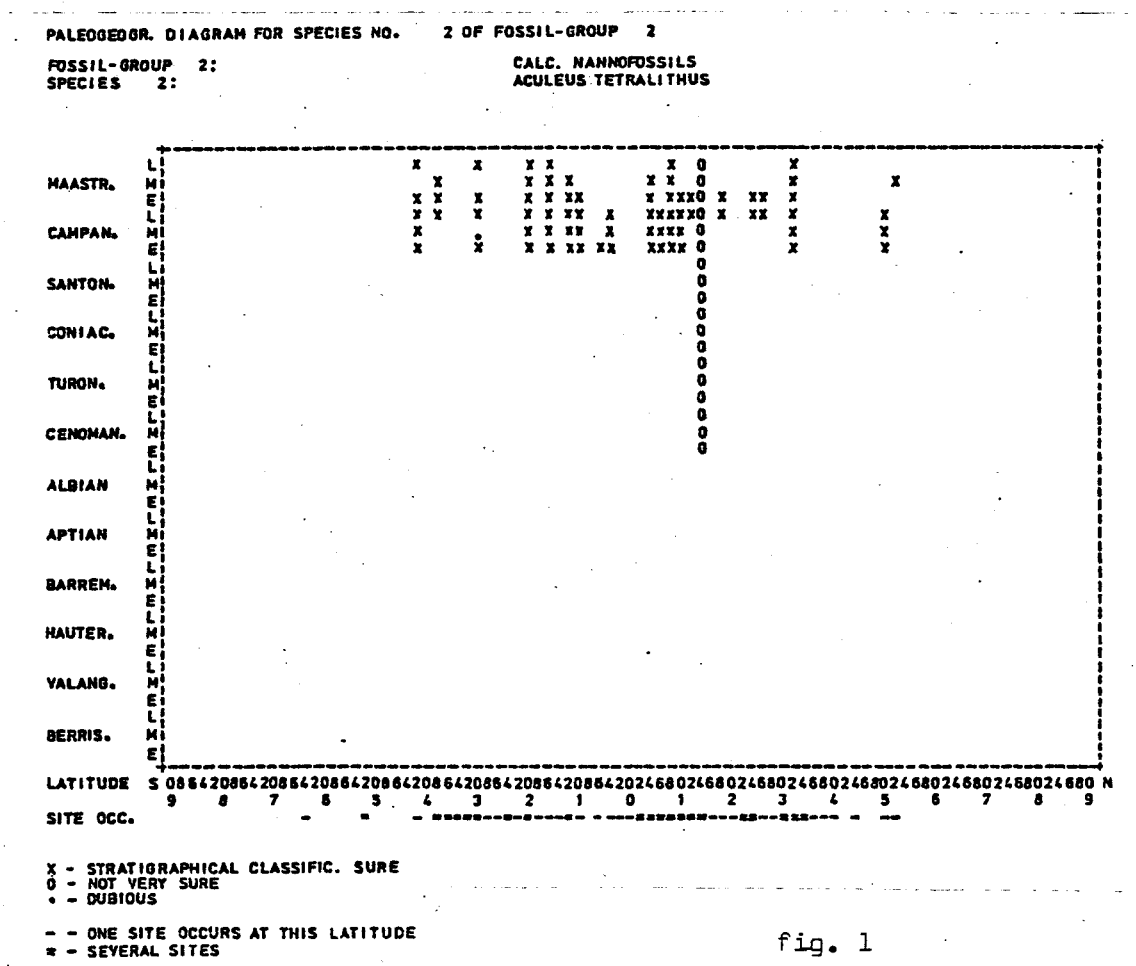
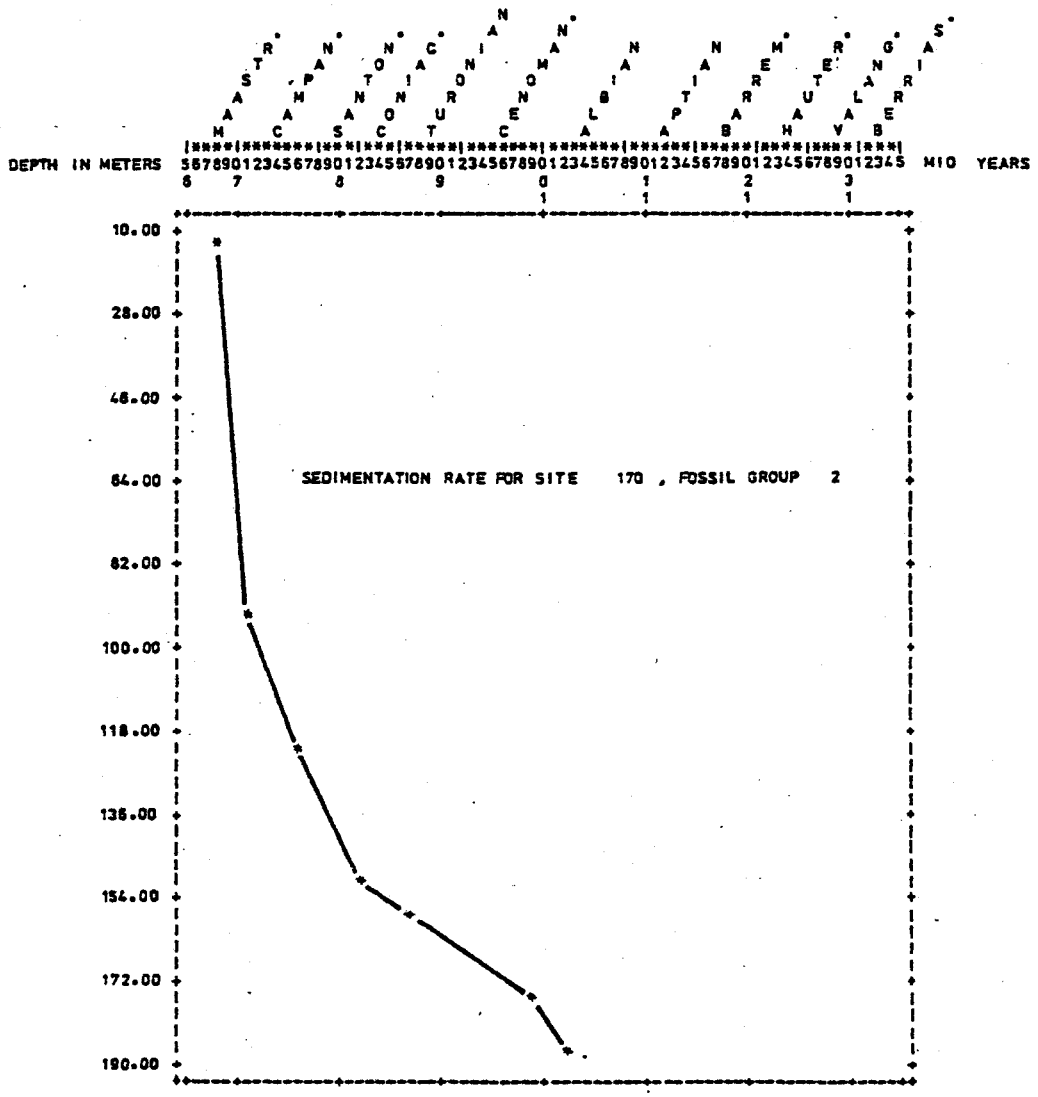


fig. 1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MIO YEARS
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82.00
100.00
118.00
136.00
154.00
172.00
190.00
SEDIMENTATION RATE FOR SITE 170 , FOSSIL GROUP 2

fig. 2

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