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NOTE !!!!

CHANGE OF ADDRESS

At the first of January 1980, the Geological Institute of Utrecht moves to another building. As a result the address of the Secretary/Treasurer will change as well. The new address is already indicated on the front-page.

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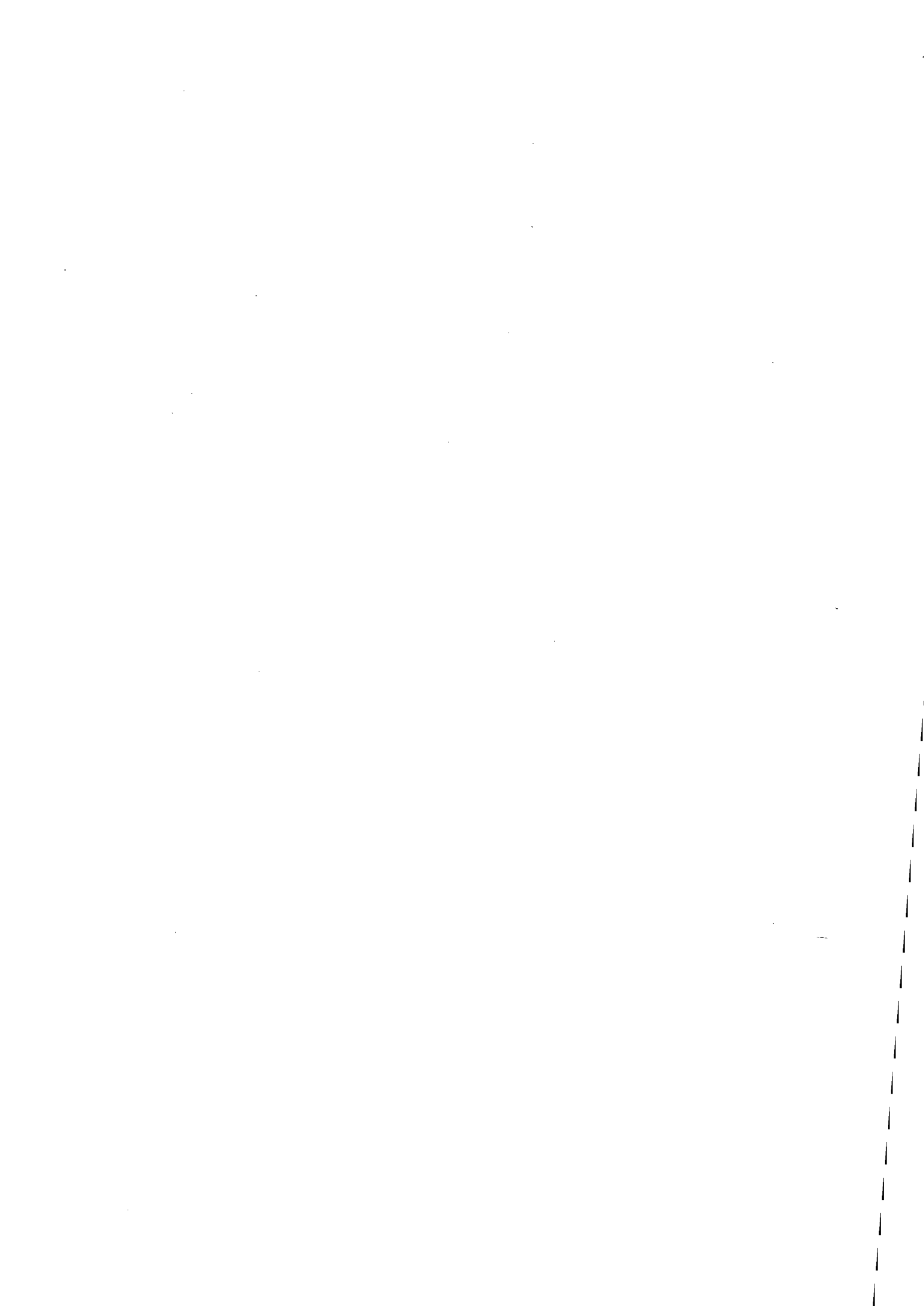
Contributions for the next issue of the INA-Newsletter should be received before March 1980. Please send your contributions to: The Editorial Committee of the INA Newsletter, c/o S.E. van Heck (address: front page).

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BIBLIOGRAPHY AND TAXA OF CALCAREOUS NANNOPLANKTON.

compiled by Shirley E. van Heck *

It has been a great encouragement to see and hear many positive reactions to this bibliography. Several people offered help and support, which in most cases will be hard to realise. However, everybody can help in the best possible way by SENDING ME REPRINTS OF THEIR PUBLICATIONS, because in many cases it takes months to get publications through a library, if one can get them at all.

Many thanks are due to those few people who did send me their reprints. Also people who sent me lists with references to new publications have been a great help to me.

Several other people came up with some good suggestions. Most were a bit too late for this issue, but in the next one they shall be taken into consideration, and discussed.

codes

Some of the codes have been slightly altered:

- Egypt east of the Suez Canal and of the Gulf of Suez was first included in 'Africa.N.', but is now included in 'Asia.SW.'
- etc. should be added after the topics under 'ECOL.'
- all taxonomy and nomenclature fall under 'syst.'
- 'SEDIM.' is also used for those publications, in which nannofossils are treated as sediments particles only.

One code should be added:

- Bibl. = Bibliography

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- A15
- 1 BUKRY, D. 1978 strat.
TERT. QUAT.
world wide
Biostratigraphy of Cenozoic marine sediment by calcareous nannofossils.
-Micropal., vol.24(1), pp.44-60, 13 figs., 2 tbs.
 - 2 WIND, F.H. & WISE, S.W. 1978 syst.
CRET.
morphology
Mesozoic holococcoliths.
-Geology, vol.6, pp.140-142, 2 figs., 1 tb.
 - 3 SISSINGH, W. 1978 strat.
CRET.
Europe.W.
Microfossil biostratigraphy and stage-stratotypes of the Cretaceous.
-Geol. en Mijnbouw, vol.57(3), pp.433-440, 3 figs.
 - 4 BRÉHERET, J.G. 1978 syst.
QUAT.
Atlantic.N.
Formes nouvelles quaternaires et actuelles de la famille des Gephyrocapsaceae (Coccolithophorides).
-C.R. Acad. Sc. Paris, vol.287, ser.D, pp.447-449, 2 pls.
 - 5 ARIAS, C., BIGAZZI, G., BONADONNA, F.P., et al. 1978 strat.
TERT.U.
Africa.N.
Chronostratigraphy of the Izarorene section in the Melilla Basin (Northeastern Morocco).
-Boll. Soc. Geol. It., vol.95, pp.1681-1694, 2 figs., 6 tbs.
 - 6 ARIAS, C., BIGAZZI, G., BONADONNA, F.P., et al. 1978 strat.syst.
TERT.U.
Europe.W.
Chronostratigraphy of Marco Simone quarry (Central Italy).
-Boll. Soc. Geol. It., vol.95, pp.1657-1679, 7 figs., 1 tb.
 - 7 SCHMIDT, R.R. 1978 TERT.U.
Europe.W.
TECHN. counting
Calcareous nannofossils.
-In: Zachariasse, W.J. et al.: Micropaleontological counting methods and techniques - an exercise on an eight metres section of the Lower Pliocene of Capo Rossello, Sicily. Utrecht Micropal. Bull., vol.17, pp.241-265, 9 figs.
 - 8 MULLER, C. 1978 strat.
TERT.L.
Europe.W.
Atlantic.N.
Remarks on biostratigraphic useful nannofossils in the Paleogène of the northern Hemisphere.
-Newsl. Stratigr., vol.7(1), pp.45-52, 1 tb.
 - 9 KATZ, B.J. 1978 TECH.prep.
Preparation of calcareous nannofossil assemblages for chemical examination.
-J. Paleont., vol. 52(2), pp.497-300, 4 figs.
 - 10 HAMILTON, G. 1978 strat.(syst)
JURA.M.U.
Europe.W.
Calcareous nannofossils from the Upper Callovian and Lower Oxfordian (Jurassic) of Staffin Bay, Island of Skye, Scotland.
-Proc. Yorksh. Geol. Soc., vol.42, pt.1(3), pp.29-39, 1 pl.

- A16
- 1 SADEK, A. 1978 strat.(syst)
Nannofossils and diatoms from some Pliocene sediments
of the Northwestern Desert, Salum area, Egypt.
-N. Jb. Geol. Paläont. Mh, nr.5, pp.307-313, 4 figs.
TERT.U.
Africa.N.
 - 2 BAROZ, F., BIZON, G., BIZON, J.-J., HEIMANN, K.O., et al., 1978 strat.
Le Miocène terminal et le Pliocène dans la région de
Polemi (Chypre Ouest); milieux de dépôt.
-C.R. Acad. Sc. Paris, vol.286(24), ser.D, pp.1771-1774,
1 fig.
TERT.U.
Asia.S.W.
 - 3 SHAFIK, S. & CHAPRONIERE, G.C.H. 1978 strat.(syst)
Nannofossil and planktic foraminiferal biostratigraphy
around the Oligocene - Miocene boundary in parts of the
Indo - Pacific region.
-BMR J. Austral. Geol. Geophys., vol.3, pp.135-151,
9 figs., 1 tb.
TERT.
Pacific.C.
Indian Oc.
 - 4 HINSCH, W., KAEVER, M. & MARTINI, E. 1978 strat.(syst)
Die Fossilführung des Erdfalls von Nieheim (SE-Westfalen)
und seine Bedeutung für die Paläogeographie im Campan
und Miozän.
-Paläont. Z., vol.52(3/4), pp.219-245, 7 figs., 2 tbs.
CRET.U.
TERT.U.
Europe.W.
 - 5 RADE, J. 1978 TERT.
Tertiary biostratigraphic zonation based on calcareous
nannoplankton in eastern Australian nearshore basins.
-Oceanographic abstr., vol.25(6), p.351.
Australasia.
abstr.
 - 6 KEUPP, H. 1977 strat.(syst)
Der Solnhofer Plattenkalk - ein Blaugrünalgen-Laminit.
-Paläont. Z., vol.51(1/2), pp.102-116, 1 pl., 4 figs.
JURA.U.
Europe.W.
sedim.
 - 7 WARREN, A.D. & NEWELL, J.H. 1977 strat.
Calcareous plankton biostratigraphy of the type
Bastendorf Formation, Southwest Oregon.
-Geol. Soc. Amer. Ann. Mtg. Nov.7-9 1977, Seattle,
pp.1217-1218.
TERT.L.
America.N.
abstr.
 - 8 KEUPP, H. 1976 syst.
Neue Coccolithen aus dem Solnhofer Plattenkalk I.
-Geol. B. NO-Bayern, vol.26(2), pp.95-104, 3 pls.
JURA.U.
Europe.W.
 - 9 BERGER, W.H. 1976 Biol.Ecol.
Biogenous deep sea sediments: production, preservation
and interpretation.
-In: Riley, J.P. & Chester, R.: Chemical Oceanography,
vol.5, 2. ed., Academic Press, London, pp.265-388, 1 pl.,
46 figs., 8 tbs.
Diag.Sedim.
strat.
 - 10 WARREN, A.D. & NEWELL, J.H. 1976 strat.
Nannoplankton biostratigraphy of Upper Sacate and Gaviota
Formations, Arroyo el Bulito, Santa Barbara County,
California.
-AAPG Bull., vol.60(12), p.2191
TERT.L.
America.N.
abstr.

- 1 ELLIS, C.H. & LOHMAN, W.H. 1979 strat.syst.
Neogene calcareous nannoplankton biostratigraphy in TERT.U.
eastern Mediterranean deep-sea sediments (DSDP Leg 42A, QUAT.
Sites 375 and 376). Mediterr.
-Marine micropal., vol.4, pp.61-84, 4 pls., 8 figs., 1 tb.
- 2 HAQ, B.U. & BERGGREN, W.A. 1978 strat.syst.
Late Neogene calcareous plankton biochronology of the TERT.U.
Rio Grande Rise (South Atlantic Ocean). Atlantic.S.
-J. Paleont., vol.52(6), pp.1167-1194, 5 pls., 16 figs.,
1 tb.
- 3 LOEBLICH, A.R. Jr. & TAPPAN, H. 1978 syst.
The coccolithophorid genus Calcidiscus KAMPTNER and TERT.U.
its synonyms. QUAT.
-J. Paleont., vol.52(6), pp.1390-1392.
- 4 FLÜGEL, E. 1978 (syst)
Mikrofazielle Untersuchungsmethoden van Kalken. SEDIM.DIAG.
-book; Springer Verlag, Berlin, Heidelberg, New York.
- 5 COSTA, L.I. & MÜLLER, C. 1978 (strat)
Correlation of Cenozoic dinoflagellate and nannoplankton TERT.QUAT.
zones from the NE Atlantic and NW Europe. Europe.W.
-Newsl. Strat., vol.7(2), pp.65-72, 2 tbs. Atlantic.N.
- 6 HUANG, T.C. 1978 strat.(syst)
Calcareous nannoplankton, paleoenvironment, age and TERT.
correlation of the Upper Wulai Group and the Lower Asia.E.
Hsichih Group (Oligocene to Miocene) in northern Taiwan.
-Proc. Geol. Soc. China, no.21, pp.128-150, 2 pls.,
7 figs., 2 tbs.
- 7 SCHLAGER, W. & JAMES, N.P. 1978 SEDIM.DIAG.
Low-magnesian calcite limestones forming at the deep-sea
floor, Tongue of the Ocean, Bahamas.
-Sedimentology, vol.25, pp.675-702, 19 figs.
- 8 EHRLICH, A. & MOSHKOVITZ, S. 1978 strat.(syst)
Distribution of calcareous nannofossils and siliceous TERT.QUAT.
microfossils in the Plio - Pleistocene sediments of the Asia.SW.
Mediterranean coast and offshore of Israel (a preliminary
study).
-Israel J. Earth Sc., vol.27, pp.65-71, 2 pls., 2 figs.
- 9 MOSHKOVITZ, S. 1978 (syst)
New types of cover-slip and mounting-slide with a JURA
graticule for examination of the same object both by TECH.obs.
the light microscope and the scanning electron microscope.
-Microscopica Acta, vol.80(2), pp.161-166, 2 pls.
- 10 TAYLOR, R.J. 1978 strat.syst.
The distribution of calcareous nannofossils in the CRET.L.
Speeton Clay (Lower Cretaceous) of Yorkshire. Europe.W.
-Proc. Yorksh. Geol. Soc., vol.12, pt.2 (10), pp.195-
209, 1 pl., 4 figs., 1 tb.

- 1 PERCIVAL, S. Jr. 1978 strat.
Indigenous and reworked coccoliths from the Black Sea. QUAT.
-In: Ross, D.A., Neprochnov, Y.P. et al., Init. Rep. Mediterr.
DSDP, vol.42B, pp.773-781, 1 pl., 2 figs.
- 2 SHIMKUS, K.M., MALOVITSKY, Y.P. & SHUMENKO, S.I. 1978 strat.(syst)
The bedrocks from the Black Sea bottom and some features CRET.U.
of the Deep-Sea basin structure. TERT.QUAT.
-In: Ross, D.A., Neprochnov, Y.P. et al., Init. Rep.
DSDP, vol.42B, pp.469-482., 7 figs.
- 3 MÜLLER, C. 1978 strat.
Neogene calcareous nannofossils from the Mediterranean TERT.U.
-Leg 42A of the Deep Sea Drilling Project. QUAT.
-In: Hsü, K., Montadert, L. et al., Init. Rep. DSDP, vol. Mediterr.
42A, pp.727-751, 1 fig., 9 tbs.
- 4 BIZON, G. & MÜLLER, C. 1978 strat.
Remarks on the determination of the Pliocene / Pleisto- TERT.U.
cene boundary in the Mediterranean. QUAT.
-In: Hsü, K., Montadert, L. et al., Init. Rep. DSDP, vol. Mediterr.
42A, pp.847-853, 1 fig.
- 5 CEPEK, P., JOHNSON, D., KRASHENINNIKOV, V. et al. 1977 strat.
Synthesis of the Leg 41 biostratigraphy and paleontology JURA.U.
Deep Sea Drilling Project. CRET.
-In: Lancelot, Y., Seibold, E. et al., Init. Rep. DSDP TERT.QUAT.
vol.41, pp.1181-1198, 3 figs. Atlantic.CN
- 6 CEPEK, P. 1977 strat.(syst)
Mesozoic calcareous nannoplankton of the eastern North JURA.U.
Atlantic, Leg 41. CRET.
-In: Lancelot, Y., Seibold, E. et al., Init. Rep. DSDP Atlantic.CN
vol.41, pp.667-687, 3 pls., 4 figs., 9 tbs.
- 7 SAMTLIEBEN, C. 1977 abstr.
Pliocene - Pleistocene coccolith assemblages from the
Sierra Leone Rise, Site 366, Leg 41.
-In: Lancelot, Y., Seibold, E. et al., Init. Rep. DSDP
vol.41, p.496.
- 8 KEUPP, H. 1978 strat.syst.
Das kalkige Nannoplankton der 'Roten Mergel' (Tithon - JURA.U.
Basis) in der Südlichen Frankenalb und ein assemblage - Europe.W.
Vergleich mit anderen Proben des oberen Weissjura. DIAG.ECOL.
-Geol. Bl. NO-Bayern, vol.28(2/3), pp.80-117, 11 figs., SEDIM.
3 tbs.
- 9 HAQ, B.U. 1978 strat.(syst)
Calcareous nannoplankton. JURA-RECENT
-In: Haq, B.U. & Boersma, A., Introduction to marine BIOL.ECOL.
micropaleontology. Elsevier.

- A19
- 1 SADEK, A. & TELEB, F. 1978 strat.
Standard nannofossil zones of Egypt. Part I - Maastrichtian. CRET.U.
-Rev. Esp. Micropal., vol.10(2), pp.205-210, 3 figs. Africa.N.
 - 2 BALDI-BEKE, M., GELATI, R., RADOVISC, A. & ROBBA, E. 1978 strat.
The problem of the Oligocene - Miocene boundary: some TERT.
relevant biological events. Europe.W.
-Riv. Ital. Paleont., vol.84(2), pp.443-455, 5 figs.
 - 3 GAETANI, M. & POLIANI, G. 1978 (syst)
Il Toaciano e il Giurassico Medio in Albenza (Bergamo). JURA.LM
-Riv. Ital. Paleont., vol.84(2), pp.349-382, 2 pls. Europe.W.
 - 4 VERDENIUS, J.G. 1978 strat.
A Valanginian calcareous nannofossil association from CRET.L.
Kong Karls Land, Eastern Svalbard. Europe.W.
-Norsk Polarinstitut, Notiser (1977), pp.350-352.
 - 5 BUKRY, D. 1978 strat.
Cenozoic coccolith, silicoflagellate, and diatom TERT.QUAT.
stratigraphy, Deep Sea Drilling Project Leg 44. Atlantic.CN
-In: Benson, W.E., Sheridan, R.E. et al., Init. Rep. DSDP,
vol.44, pp.807-824, 2 figs.
 - 6 GRADSTEIN, F.M., BUKRY, D., HABIB, D., RENZ, O. et al. 1978 (strat)
Biostratigraphic summary of DSDP Leg 44: Western North JURA.CRET.
Atlantic Ocean. TERT.QUAT.
-In: Benson, W.E., Sheridan, R.E. et al., Init. Rep. DSDP, Atlantic.CN
vol.44, pp.657-662, 6 figs.
 - 7 MAZZEI, R. 1977 strat.(syst)
Biostratigraphy of the Rio Mazzapiedi-Castellania Section TERT.U.
(type section of the Tortonian) based on calcareous Europe.W.
nannoplankton.
-Atti Soc. Tosc. Sci. Nat., Mem., Ser.A, vol.84,
pp.15-24, 3 pls., 3 figs.
 - 8 WORSLEY, T.R. & JORGENS, M.L. 1977 strat
Automated biostratigraphy. TERT.L.
-In: Ramsay, A.T.S., Oceanic micropaleontology TECH.count.
Academic Press, pp.1201-1229, 16 figs., 4 tbs.
 - 9 HAY, W.W. 1977 strat.syst.
Calcareous nannofossils. JURA-RECENT
-In: Ramsay, A.T.S., Oceanic micropaleontology TECH.
Academic Press, pp.1055-1200, 31 pls., 8 tbs. Overview..
 - 10 SCHNEIDERMANN, N. 1977 (syst)
Selective dissolution of recent coccoliths in the ECOL.
Atlantic Ocean. SEDIM.
-In: Ramsay, A.T.S., Oceanic micropaleontology
Academic Press, pp.1009-1053, 6 pls., 6 figs., 6 tbs.

- | | | | |
|---|---|------|--|
| 1 | SHAFIK, S.
Paleocene and Eocene nannofossils from the Kings Park Formation, Perth Basin, Western Australia.
-BMR Bull., vol.192, pp.165-172, 3 tbs. | 1978 | strat.
TERT.L.
Australasia |
| 2 | CHAROLLAIS, J., CHATEAUNEUF, J.-J., MANIVIT, H. et al.
Sur un flysch "ultrahelvétique" de la klippe de Sulens (Haute-Savoie).
-Bull. B.R.G.M., ser.2, sect.1, nr.4, pp.289-304, 3 figs., 3 tbs. | 1978 | strat.
TERT.L.
Europe.W. |
| 3 | CHAROLLAIS, J., CHATEAUNEUF, J.-J., MANIVIT, H. et al.
Sur l'âge des "Grès intermédiaires" dans le synclinal de Thônes (Haute-Savoie).
-Bull. B.R.G.M., ser.2, sect.1, nr.4, pp.279-288 + 10 2 figs., 2 tbs. | 1978 | strat.
TERT.L.
Europe.W. |
| 4 | AMEDRO, F., BIDAR, A., DAMOTTE, R., MANIVIT, H. et al.
Echelles biostratigraphiques dans le Turonien du Cap Blanc-Nez (Pas-de-Calais, F.).
-Bull. Inf. Géol. Bass. Paris, vol.15(2), pp.3-20, 8 figs. | 1978 | strat.
CRET.M.
Europe.W. |
| 5 | MEULENKAMP, J.E., SCHMIDT, R.R., TSAPRALIS, V. et al.
An empirical approach to paeoenvironmental analysis.
1. Foraminifera, calcareous nannoplankton and ostracodes from the Pliocene of section Prassá, Crete.
-Proc. Kon. Ned. Akad. Wetensch., ser.B, vol.81, pp.339-363, 7 figs. | 1978 | strat.
TERT.U.
Europe.E. |
| 6 | NOEL, D. & MANIVIT, H.
Nannofaciès de "black shales" aptiennes et albiennes d'Atlantique sud (legs 36 et 40). Intérêt sédimentologique.
-Bull. Soc. Géol. France, vol.20(4), pp.491-502, 4 pls., 1 fig. | 1978 | CRET.M.
Atlantic.CS.
Black Shales
DIAG |
| 7 | GAZDZICKA, E.
Calcareous nannoplankton from the uppermost Cretaceous and Paleogene deposits of the Lublin Upland.
-Acta Geol. Polon., vol.28(3), pp.335-375, 44 pls., 2 figs. | 1978 | strat. <u>syst.</u>
CRET.U.
TERT.L.
Europe.E. |
| 8 | THOMPSON, L.B., PERCIVAL, S.F. & PATRICELLI, J.A.
Stratigraphic relationships of the Annona Chalk and Gober Chalk (Upper Campanian) type localities in Northeast Texas and Southwest Arkansas.
-Transa. Gulf Coast Assoc. Geol. Soc., vol.28, pt.2, pp.665-679, 4 pls., 5 figs. | 1978 | strat(syst)
CRET.U.
AmericaN. |
| 9 | CHI, W.R.
The Late Neogene nannobiostratigraphy in the Tainan Foothills region, Southern Taiwan.
-Petr. Geol. Taiwan, nr.15, pp.89-125, 10 figs., 2 pls. | 1978 | strat(syst)
TERT.U.
Asia.E. |

- 1 GEITZENAUER, K.R., ROCHE, M.B. & McINTYRE, A. 1977 QUAT.
Coccolith biogeography from North Atlantic and Pacific Atlantic.
surface sediments. Pacific.
-In: Ramsay, A.T.S., Oceanic micropaleontology (book) ECOL.
Academic Press, pp.973-1008, 18 figs., 3 tbs, 5 appx.
- 2 HONJO, S. 1977 RECENT
Biogeography and provincialism of living coccolithophorids PacificCN.
in the Pacific Ocean. ECOL.
-In: Ramsay, A.T.S., Oceanic micropaleontology (book)
Academic Press, pp.951-972, 11 figs., 1 tb.
- 3 HAY, W.W. & STEINMETZ, J.C. 1977 strat.
High reliability and usefulness in probabilistic TERT.L.
stratigraphic analysis. AmericanN.
-Bol. Geol., Publ. esp. nr.7, Mem. Segundo Congreso TECHN.(count)
Latinoamericano de Geologia, Caracas, Venezuela,
11-16 Nov. 1973; pp.1529-1540, 6 figs.
- 4 BALDI-BEKE, M. 1977 strat(syst)
A budai oligocén rétegtani és fáciastani tagolódása TERT.L.
nannoplankton alapján. (Stratigraphical and faciological Europe.E.
subdivisions of the Oligocene as based on nannoplankton.)
-Földt. Közl., Bull. Hung. Geol. Soc., vol.107,
pp.59-89, 11 pls., 6 figs. (English summary: 2 pp.)
- 5 BIGNOT, G. & DANGEARD, L. 1977 strat.
Resultats preliminaires de l'examen au M.E.B. de QUAT.
nodules polymetalliques des fonds oceaniques actuels. AtlanticC.
-Bull. Soc. Géol. et Amis du Muséum du Havre, vol.64(3), PacificC.
pp.19-31, 2 pls.
- 6 BAUER, W.F. 1977 abstr.
Coccoliths of Mobile Bay: a preliminary report. QUAT.
-Ala. Acad. Sci., J., vol.48(3), p.76. AmericanN.
SEDIM(dissol)
- 7 THIERSTEIN, H.R., GEITZENAUER, K.R., MOLFINO, B, et al. 1977 strat.
Global synchronicity of Late Quaternary coccolith datum QUAT.
levels: validation by oxygen isotopes. Atlantic.
-Geology, vol.5, pp.400-404, 2 figs., 4 tbs. Pacific.
Indian Oc.
- 8 WILCOXON, J.A. 1977 Abstr.
Calcareous nannoplankton from tropical Indo-Pacific TERT.U.QUAT.
deep-sea cores. Indian Oc.
-Diss. Abstr. Int., Sect.B, vol.38(3), p.1111-B. Pacific.C.
- 9 TAKAYAMA, T. 1977 strat.
Some remarks on Pliocene-Pleistocene calcareous nanno- TERT.U.QUAT.
fossils from le Castella and Santa Maria di Catanzaro, Europe.W.
southern Italy.
-Neogene-Quaternary Boundary Proc. II Symposium, Bologna
1975. Giorn. di Geol., vol.41(2), fasc.I-II, pp.115-122.

- 1 LANCELOT, Y., SEIBOLD, E. et al. 1978 (strat)
Site reports.
-In: Lancelot, Y., Seibold, E. et al., Init. Rep. DSDP,
vol. 41, pp. 19-491. CRET.M.U.
TERT.QUAT.
Atlantic.CN
- 2 NOEL, D. & MELGUEN, M. 1978 (syst)
Nannofacies of Cape Basin and Walvis Ridge sediments,
Lower Cretaceous to Pliocene (Leg 40). CRET.M.U.
TERT.
Atlantic.S.
ECOL.
- 3 TOKOYODA, C., & MIZUNO, A. 1978 strat(syst)
Quaternary calcareous nannoplankton in deep sea piston
cores off Kii Peninsula. QUAT.U.
Pacific.N.
- 4 HARADA, K. 1978 strat(syst)
Micropaleontologic investigation of Pacific manganese
nodules. TERT.U.QUAT.
Pacific.CN.
SEDIM.
- 5 BARBIERI, F. 1978 strat.
Osservazioni stratigrafiche e paleoambientali su alcune
"argille varicolori" dell' Appennino settentrionale. TERT.L.
Europe.W.
- 6 HAQ, B.U. & LOHMANN, G.P. 1978 strat(syst)
Remarks on the Oligocene calcareous nannoplankton
biogeography of the Norwegian Sea (DSDP Leg 38) TERT.L.
Atlantic.N.
ECOL.
- 7 SAMTLEBEN, C. 1978 strat(syst)
Pliocene-Pleistocene coccolith assemblages from the
Sierra Leone Rise - Site 366, Leg 41. TERT.U.QUAT.
Atlantic.C.
ECOL.
- 8 DAVAUD, E. & GUEX, J. 1978 strat.
Traitement analytique "manuel" et algorithmique de
problèmes complexes de corrélations biochronologiques. TERT.L.
America.N.
TECHN.count.
- 9 SADEK, A. & TELEB, F. 1978 strat.
Standard nannofossil zones of Egypt. Part II (Paleocene). TERT.L.
Africa.N.

- | | | | |
|---|--|------|---|
| 1 | SANCETTA, C.
Neogene Pacific microfossils and paleoceanography.
-Mar. Micropal., vol.3, pp.347-376, 4 figs. | 1978 | TERT.U;QUAT.
Pacific.
Indian O.
ECOL. |
| 2 | KENNETT, J.P.
The development of planktonic biogeography in the
Southern Ocean during the Cenozoic.
-Mar. Micropal., vol.3, pp.301-345, 11 figs., 3 tbs. | 1978 | TERT;QUAT.
S.Hemisph.
ECOL. |
| 3 | SHUMENKO, S.I. & STECENKO, V.P.
Zonal'noe rasclenienie pozdemelov'ich otlozenii Kr'ima
po izvestkov'im nanofossilijam. (Zonal sequence of Late
Cretaceous deposits of the Crimea according to calcareous
nanofossils.)
-Dokl. Akad. Nauk. SSSR, vol.241(5), pp.1160-1162, 1 tb.
(in Russian). | 1978 | strat.
CRET.M.U.
TERT.L.
Russia |
| 4 | WIND, F.H.
Western North Atlantic Upper Jurassic calcareous
nanofossil biostratigraphy.
-In: Benson, W.E., Sheridan, R.E. et al., Init. Rep. DSDP,
vol.44, pp.761-773, 1 pl., 3 figs. | 1978 | <u>strat.syst.</u>
JURA.U.
CRET.L.
Atlantic.C. |
| 5 | ROTH, P.H.
Cretaceous nannoplankton biostratigraphy and oceanography
of the northwestern Atlantic Ocean.
-In: Benson, W.E., Sheridan, R.E. et al., Init. Rep. DSDP,
vol.44, pp.731-759, 3 pls., 11 figs. | 1978 | <u>strat.syst.</u>
JURA.U;CRET.
Atlantic.CN.
ECOL. |
| 6 | SCHMIDT, R.R.
Calcareous nannoplankton from the western North Atlantic
DSDP Leg 44.
-In: Benson, W.E., Sheridan, R.E. et al., Init. Rep. DSDP,
vol.44, pp.703-729, 5 pls., 4 tbs., 1 fig. | 1978 | strat.
JURA.U;CRET.
TERT;QUAT.
Atlantic.CN. |
| 7 | BUTT, A. & HERM, D.
Paleo-oceanographic aspects of the Upper Cretaceous
geosynclinal sediments of the eastern Alps.
-In: Closs, H. et al.: Alps, Apennines, Hellenides, pt.2:
The Northern calcareous Alps and the Southern Alps.
Inter-Union Comm. Geodyn., Sci. Rep. no.38, pp.87-95
2 figs. | 1978 | CRET.U.
Europe.W.
SEDIM. |
| 8 | BENSON, W.E., SHERIDAN, R.E. et al.
Site reports.
-In: Benson, W.E., Sheridan, R.E. et al., Init. Rep. DSDP,
vol.44, pp.23-409. | 1978 | strat.
CRET.-QUAT.
Atlantic.CN. |
| 9 | DOW, W.G.
Geochemical analysis of samples from holes 391A and 391C
Leg 44, Blake-Bahama Basin.
-In: Benson, W.E., Sheridan, R.E. et al., Init. Rep. DSDP,
vol.44, pp.625-634. | 1978 | (strat)
JURA.U;CRET.
TERT.
Atlantic.C. |

- 1 GOY, G., NOEL, D. & BUSSON, G. 1978 JURA.L.
 Calcareous nannofossils in Lower Toarcian paper-shales Europe.W.
 from Paris Basin (France): a contribution to their (ECOL.DIAG)
 environmental knowledge. abstr.
 -10th Int. Congress on Sedim., Jerusalem, July 9-14, 1978.
 Abstracts, vol.1, 2 pp.
- 2 NOEL, D. 1978 (syst)
 Les calcaires à Nannoconus (dits Calcaires à Calpionelles) JURA.U;CRET.L.
 de l'Ermitage d'Esparron (Isère), au passage Tithonique - Europe.W.
 Berriasien.
 -Note du Lab. de Paleont. de l'Univ. de Genève, nr.13,
 pp.109-112, 2 pls.
- 3 CHANNELL, J.E.T., LOWRIE, W., MEDIZZA, F. & ALVAREZ, W. 1978 (strat)
 Palaeomagnetism and tectonics in Umbria, Italy. CRET.M.U.
 -Earth and Planet. Sci. Lett., vol.39, pp.199-210, TERT.L.
 10 figs., 1 tb.
- 4 HUANG, T.C. 1978 strat.syst.
 Calcareous nannofossils of the subsurface pre-Miocene CRET.M.
 rocks from the Peikang Basement High and adjacent areas Asia.E.
 in western Central Taiwan (Part I: Cretaceous).
 -Petroleum Geol. Taiwan, no.15, pp.49-87, 8 pls., 7 figs.
- 5 HONJO, S. & EREZ, J. 1978 (syst)
 Dissolution rates of calcium carbonate in the deep DIAG
 ocean: an in-situ experiment in the North Atlantic Ocean. Atlantic.N.
 -Earth and Planet. Sci. Lett., vol.40, pp.287-300,
 1 pl., 4 figs., 2 tbs.
- 6 SALAJ, J. 1978 strat(syst)
 Contribution à la microbiostratigraphie des hypostrato- CRET.M.U.
 types tunisiens du Crétacé supérieur du Danien et du TERT.L.
 Paléocène. Africa.N.
 -Actes du VIe Coll. Afr. Micropal., Tunis 1974, Ann.
 des Mines et de la Géol., Tunis, nr.28, vol.II, pp.119-
 145, 5 pls., 2 tbs.
- 7 ABDELMALIK, W.M., BASSIOUNI, M.A. et al. 1978 strat.syst.
 Biostratigraphy of Upper Cretaceous - Lower Tertiary CRET.U;TERT.L.
 rocks from West Central Sinai.2.Calcareous nannoplankton. Asia.SW.
 -Actes du VIe Coll. Afr. Micropal., Tunis 1974, Ann.
 des Mines et de la Géol., Tunis, nr.28, vol.II, pp.217-
 241, 5 pls., 4 figs.
- 8 PERCH-NIELSEN, K., SADEK, A., BARAKAT, M.G. & TELEB, F. 1978 strat.syst.
 Late Cretaceous and Early Tertiary calcareous nannofossil CRET.U;TERT.L.
 and planctonic foraminifera zones from Egypt. Africa.N.
 -Actes du VIe Coll. Afr. Micropal., Tunis 1974, Ann.
 des Mines et de la Géol., Tunis, nr.28, vol.II, pp.337-
 403, 23 pls., 4 figs., 3 tbs.

- | | | |
|---|---|--|
| 1 | MEDD, A.W. 1979
The Upper Jurassic coccoliths from the Haddenham and
Gamlingay boreholes (Cambridgeshire, England).
-Eclogae Geol. Helv., vol.72(1), pp.19-109, 11 pls.,
4 figs., 4 tbs. | strat. <u>syst.</u>
JURA.U.
Europe.W. |
| 2 | HAMILTON, G. 1979
Lower and Middle Jurassic calcareous nannofossils from
Portugal.
-Eclogae Geol. Helv., vol.72(1), pp.1-17, 1 pl., 2 figs. | strat.
JURA.LM.
Europe.W. |
| 3 | CROUCH, J.K. & BUKRY, D. 1979
Comparison of Miocene provincial foraminiferal stages to
coccolith zones in the California Continental Borderland.
-Geology, vol.7, pp.211-215, 3 figs. | strat.
TERT.U.
America.N. |
| 4 | BUKRY, D. 1979
Comments on opal phytoliths and stratigraphy of Neogene
silicoflagellates and coccoliths at Deep Sea Drilling
Project Site 397 off northwest Africa.
-In: Luyendyk, B.P., Cann, J.R. et al., Init. Rep. DSDP,
vol.49, pp.977-1009, 10 pls., 5 figs. | strat.
TERT.U.
QUAT.
Atlantic.C. |
| 5 | BUKRY, D. 1979
Coccolith and silicoflagellate stratigraphy, northern
Mid-Atlantic Ridge and Reyjanes Ridge, Deep Sea Drilling
Project Leg 49.
-In: Luyendyk, B.P., Cann, J.R. et al., Init. Rep. DSDP,
vol.49, pp.551-581, 8 pls., 8 figs. | strat.
TERT;QUAT.
Atlantic.N. |
| 6 | STEINMETZ, J.C. 1979
Calcareous nannofossils from the North Atlantic Ocean,
Leg 49, Deep Sea Drilling Project.
-In: Luyendyk, B.P., Cann, J.R. et al., Init. Rep. DSDP,
vol.49, pp.519-531, 2 figs., 8 tbs. | strat.
TERT;QUAT.
Atlantic.N.
ECOL. |
| 7 | BUKRY, D. 1979
Neogene coccolith stratigraphy, Mid-Atlantic Ridge, Deep
Sea Drilling Project Leg 45.
-In: Melson, W.G., Rabinowitz, P.D. et al., Init. Rep. DSDP,
vol.45, pp.307-317, 2 pls., 3 figs. | strat. <u>syst.</u>
TERT;QUAT.
Atlantic.C. |
| 8 | KELLER, G. 1979
Late Neogene planktonic foraminiferal biostratigraphy
and paleoceanography of the Northwest Pacific DSDP Site
296.
-Palaeogeogr., -climatol., -eol., vol.27, pp.129-154,
4 pls., 7 figs., 3 tbs. | (strat)
TERT;QUAT.
Pacific.N. |
| 9 | CONARD, M. & MANIVIT, H. 1979
Contribution à l'étude biostratigraphique du Crétacé
supérieur d'une coupe du Massif du Braus (Alpes Maritimes,
SE France).
-Geobios, nr.12, fasc.3, pp.437-443, 1 fig., 3 tbs. | strat.
CRET.MU.
Europe.W. |

- 1 HECK, S.E. van 1979 Bibl.
Bibliography and taxa of calcareous nannoplankton.
-INA Newsl. vol.1(1), pp.AB1-5, A1-12, B1-27. syst.
- 2 HECK, S.E. van 1979 syst.
Taxonomical notes.
-INA Newsl. vol.1(1), pp.C1-2.
- 3 CHEN, P.H., HUANG, C.Y., HUANG, T.C. & TSAI, L.P. 1977 strat.
A study of the Late Neogene marine sediments of the TERT.U.
Chishan area, Taiwan: paleomagnetic stratigraphy, QUAT.
biostratigraphy, and paleoclimate. Asia.E.
-Mem. Geol. Soc. China, no.2, pp.169-190, 4 pls., 10 figs., ECOL.
1 tb.
- 4 CHI, W.R. 1979 strat.(syst)
The nannofossils and their environmental significance TERT.U.
from the alleged 'Piling Shale' and 'Pachangchi Sandstone' Asia.E.
in the Taihsi Structure, Yunlin Area. ECOL.
-Ti-Chih, vol.2, pp.25-29, 1 pl., 1 fig.
- 5 HUANG, T.C. 1979 strat.(syst)
Calcareous nannofossil assemblage from the Nanchuang TERT.U.
Formation and its stratigraphic significance. Asia.E.
-Ti-Chih, vol.2, pp.13-18, 1 pl., 1 fig.
- 6 STRADNER, H. & FUCHS, R. 1978 strat.syst.
Das Nannoplankton in Osterreich. TERT.U.
-In: Senes, J.: Chronostratigraphie und Neostratotypen Europe.W.
Vol.6: Miozän der Zentralen Paratethys; M4 Badenien,
8. Die Nannofossilien des Badenien. pp.489-531, pls.11-16,
figs.61-62.
- 7 TAKAYANAGI, Y. & OKAMURA, M. 1977 strat.
Mid-Cretaceous planktonic microfossils from the Obira CRET.M.U.
Area, Rumoi, Hokkaido. Asia.E.
-Mid. Cret. Events, Hokkaido Symp., 1976; Paleont. Soc.
Japan, Spec. Pap. no.21, pp.31-39, 6 figs.
- 8 TAKAYANAGI, Y., TAKAYAMA, T. & ODA, M. 1977 strat.(syst)
Notes on the Late Cenozoic planktonic foraminifera and TERT.U.
calcareous nannofossils from Panay, Philippines. Asia.E.
Contributions to the geology and palaeontology of
Southeast Asia, 181.
-In: Kobayashi, T. et al., Geology and palaeontology of
Southeast Asia, vol.18, pp.77-86, pls.10-13, 6 figs.
- 9 TAKAYANAGI, Y., TAKAYAMA, T., SAKAI, T., et al. 1979 strat.(syst)
Late Cenozoic micropaleontological events in the TERT.U.; QUAT.
equatorial Pacific sediments. Pacific.C.
-Sci. Rep. Tohoku Univ., Sendai, Second Ser., vol.49(1),
pp.71-87, 2 pls., 11 figs., 1 tb.

- Discoaster capricornensis RADE 1977; p.279, pl.3, fig.28, A14-4
Capricorn Basin (Australia), Pliocene.
- capricornensis, Discoaster RADE 1977; p.279, pl.3, fig.28, A14-4
Capricorn Basin (Australia), Pliocene.
- Discoaster grillii RADE 1977; pp.279,280, pl.3, fig.23, A14-4
Capricorn Basin (Australia), Pliocene.
- grillii, Discoaster RADE 1977; pp.279,280, pl.3, fig.23, A14-4
Capricorn Basin (Australia), Pliocene.
- Micrantholithus australiensis RADE 1977; p.282, pl.2, A14-4
fig.17, Bass Strait (Australia), Miocene.
- australiensis, Micrantholithus RADE 1977; p.282, pl.2, A14-4
fig.17, Bass Strait (Australia), Miocene.
- Micrantholithus bassiensis RADE 1977; p.282, pl.2, figs. A14-4
7,8, Otway Basin (Australia), Oligocene.
- bassiensis, Micrantholithus RADE 1977; p.282, pl.2, figs. A14-4
7,8, Otway Basin (Australia), Oligocene.
- Rhabdosphaera otwayensis RADE 1977; p.283, pl.3, fig.10, A14-4
Otway Basin (Australia), Oligocene.
- otwayensis, Rhabdosphaera RADE 1977; p.283, pl.3, fig.10, A14-4
Otway Basin (Australia), Oligocene.
- Chiastoplacolithus BARRIER 1977; pp.20,21; type species: A14-5
Watznaueria quadrata WORSLEY 1971.
- Chiastoplacolithus quadratus (WORSLEY 1971) BARRIER 1977; A14-5
p.21 (ex Watznaueria); type species of Chiastoplacolithus.
- quadratus, Chiastoplacolithus (WORSLEY 1971) BARRIER 1977; A14-5
p.21 (ex Watznaueria); type species of Chiastoplacolithus.
- Chiasmolithus parvus BARRIER 1977; p.24, pl.13, fig.1, A14-5
France, Aptien.
- parvus, Chiasmolithus BARRIER 1977; p.24, pl.13, fig.1, A14-5
France, Aptien.
- Cruciplacolithus helis (STRADNER 1963) BARRIER 1977; p.25, A14-5
(ex Coccolithus). Invalid: ICBN Art.55
- helis, Cruciplacolithus (STRADNER 1963) BARRIER 1977; p.25, A14-5
(ex Coccolithus). Invalid: ICBN Art.55
- Gephyrocapsa margereli BREHERET 1978; p.447, pl.2, fig.1, A15-4
Azores (Atlantic.N.), Quaternary.
- margereli, Gephyrocapsa BREHERET 1978; p.447, pl.2, fig.1, A15-4
Azores (Atlantic.N.), Quaternary.

- elatus, Calcidiscus (KAMPTNER 1956) LOEBLICH & TAPPAN 1978; p.1391 (ex Cyclococcolithus). A17-3
- Calcidiscus formosus (KAMPTNER 1963) LOEBLICH & TAPPAN 1978; p.1391 (ex Cyclococcolithus). A17-3
- formosus, Calcidiscus (KAMPTNER 1963) LOEBLICH & TAPPAN 1978; p.1391 (ex Cyclococcolithus). A17-3
- Calcidiscus gammation (BRAMLETTE & SULLIVAN 1961) LOEBLICH & TAPPAN 1978; p.1391 (ex Coccolithites). A17-3
- gammation, Calcidiscus (BRAMLETTE & SULLIVAN 1961) LOEBLICH & TAPPAN 1978; p.1391 (ex Coccolithites). A17-3
- Calcidiscus hirsutus (MULLER 1970) LOEBLICH & TAPPAN 1978; p.1391 (ex Cyclococcolithus). A17-3
- hirsutus, Calcidiscus (MULLER 1970) LOEBLICH & TAPPAN 1978; p.1391 (ex Cyclococcolithus). A17-3
- Calcidiscus hoerstgensis (MULLER 1970) LOEBLICH & TAPPAN 1978; p.1391 (ex Cyclococcolithus). A17-3
- hoerstgensis, Calcidiscus (MULLER 1970) LOEBLICH & TAPPAN 1978; p.1391 (ex Cyclococcolithus). A17-3
- Calcidiscus kingii (ROTH 1970) LOEBLICH & TAPPAN 1978; p.1391 (ex Cyclococcolithus). A17-3
- kingii, Calcidiscus (ROTH 1970) LOEBLICH & TAPPAN 1978; p.1391 (ex Cyclococcolithus). A17-3
- Calcidiscus leptoporus (MURRAY & BLACKMAN 1898) LOEBLICH & TAPPAN 1978; p.1391 (ex Coccosphaera). A17-3
- leptoporus, Calcidiscus (MURRAY & BLACKMAN 1898) LOEBLICH & TAPPAN 1978; p.1391 (ex Coccosphaera). A17-3
- Calcidiscus lunulus (ROTH 1970) LOEBLICH & TAPPAN 1978; p.1392 (ex Cyclococcolithus). A17-3
- lunulus, Calcidiscus (ROTH 1970) LOEBLICH & TAPPAN 1978; p.1392 (ex Cyclococcolithus). A17-3
- Calcidiscus lusitanicus (BLACK 1964) LOEBLICH & TAPPAN 1978; p.1392 (ex Coccolithus). A17-3
- lusitanicus, Calcidiscus (BLACK 1964) LOEBLICH & TAPPAN 1978; p.1392 (ex Coccolithus). A17-3
- Calcidiscus macintyreii (BUKRY & BRAMLETTE 1969) LOEBLICH & TAPPAN 1978; p.1392 (ex Cyclococcolithus). A17-3
- macintyreii, Calcidiscus (BUKRY & BRAMLETTE 1969) LOEBLICH & TAPPAN 1978; p.1392 (ex Cyclococcolithus). A17-3

- spatiosus, Calcidiscus (KAMPTNER 1963) LOEBLICH & TAPPAN 1978; p.1392 (ex Cyclococcolithus). A17-3
- Staurolithites coroniformis (FORCHHEIMER 1972) TAYLOR 1978; p.199 (ex Vagalapilla). A17-10
Invalid ICBN Art. 33.
- coroniformis, Staurolithites (FORCHHEIMER 1972) TAYLOR 1978; p.199 (ex Vagalapilla). A17-10
Invalid ICBN Art. 33.
- Tegumentum striatus (BLACK 1971) TAYLOR 1978; p.199 (ex Chiastozygus). A17-10
Invalid ICBN Art. 33.
- striatus, Tegumentum (BLACK 1971) TAYLOR 1978; p.199 (ex Chiastozygus). A17-10
Invalid ICBN Art. 33.
- Zygodiscus noeli (ROOD, HAY & BARNARD 1971) TAYLOR 1978; p.200 (ex Zeugrhabdotus). A17-10
Invalid ICBN Art. 33.
- noeli, Zygodiscus (ROOD, HAY & BARNARD 1971) TAYLOR 1978; p.200 (ex Zeugrhabdotus). A17-10
Invalid ICBN Art. 33.
- Parhabdolithus reightonensis TAYLOR 1978; p.200, pl.6, fig.1, England, Hauterivian. A17-10
- reightonensis, Parhabdolithus TAYLOR 1978; p.200, pl.6, fig.1, England, Hauterivian. A17-10
- Cyclicargolithus reticulatus (GARTNER & SMITH 1967) PROTO-DECIMA, MEDIZZA & TODESCO 1978; p.572 (ex Cyclococcolithus). A20-5
Invalid ICBN Art. 33.
- reticulatus, Cyclicargolithus (GARTNER & SMITH 1967) PROTO-DECIMA, MEDIZZA & TODESCO 1978; p.572 (ex Cyclococcolithus). A20-5
Invalid ICBN Art. 33.
- Pontosphaera japonica (TAKAYAMA 1967) PROTO-DECIMA, MEDIZZA & TODESCO 1978; p.573 (ex Discolithina). A20-5
Invalid ICBN Art. 33.
- japonica, Pontosphaera (TAKAYAMA 1967) PROTO-DECIMA, MEDIZZA & TODESCO 1978; p.573 (ex Discolithina). A20-5
Invalid ICBN Art. 33.
- Pontosphaera ovata (LEVIN & JOERGER 1967) PROTO-DECIMA, MEDIZZA & TODESCO 1978; p.573 (ex Discolithina). A20-5
Invalid ICBN Art. 33.

- ovata, Pontosphaera (LEVIN & JOERGER 1967) PROTO-DECIMA, MEDIZZA & TODESCO 1978; p.573 (ex Discolithina). A20-5
Invalid ICBN Art. 33.
- Pontosphaera vigintiforata (KAMPTNER 1948) PROTO-DECIMA, MEDIZZA & TODESCO 1978; p.573 (ex Discolithus). A20-5
Invalid ICBN Art. 33.
- vigintiforata, Pontosphaera (KAMPTNER 1948) PROTO-DECIMA, MEDIZZA & TODESCO 1978; p.573 (ex Discolithus). A20-5
Invalid ICBN Art. 33.
- Chiastozygus fessus (STOVER 1966) SHAFIK 1978; p.223 A20-6
(ex Discolithus).
Invalid ICBN Art. 33.
- fessus, Chiastozygus (STOVER 1966) SHAFIK 1978; p.223 A20-6
(ex Discolithus).
Invalid ICBN Art. 33.
- Reinhardtites biperforatus (GARTNER 1968) SHAFIK 1978; A20-6
p.223 (ex Zygodiscus).
Invalid ICBN Art. 33.
- biperforatus, Reinhardtites (GARTNER 1968) SHAFIK 1978; A20-6
p.223 (ex Zygodiscus).
Invalid ICBN Art. 33.
- Braarudosphaera lakhpatensis SINGH 1978; p.88, India, A20-8
Eocene.
Invalid ICBN Art.34.
- lakhpatensis, Braarudosphaera SINGH 1978; p.88, India, A20-8
Eocene.
Invalid ICBN Art.34.
- Vekshinella crucifer (NOEL 1970) GAZDZICKA 1978; pp.340, A21-7
341 (ex Zygodiscus).
- crucifer, Vekshinella (NOEL 1970) GAZDZICKA 1978; pp.340, A21-7
341 (ex Zygodiscus).
- Eiffellithus multicostatus GAZDZICKA 1978; p.344, pl.13, A21-7
fig.4, Poland, Maastrichtian.
- multicostatus, Eiffellithus GAZDZICKA 1978; p.344, pl.13, A21-7
fig.4, Poland, Maastrichtian.
- Broinsonia cribrata GAZDZICKA 1978; p.353, pl.33, fig.2, A21-7
Poland, Maastrichtian.
- cribrata, Broinsonia GAZDZICKA 1978; p.353, pl.33, fig.2, A21-7
Poland, Maastrichtian.

- Thoracosphaera longiuscula GAZDZICKA 1978; pp.361,362, pl.41, fig.1, Poland, Paleocene. A21-7
- longiuscula, Thoracosphaera GAZDZICKA 1978; pp.361,362, pl.41, fig.1, Poland, Paleocene. A21-7
- Cretarhabdus quadratus (BLACK 1971) WIND 1978; p.764 (ex Microstaurus). A24-4
- quadratus, Cretarhabdus (BLACK 1971) WIND 1978; p.764 (ex Microstaurus). A24-4
- Cyclagelosphaera bergeri ROTH 1978; p.746, holotype: Perch-Nielsen, K., 1968, pl.26, figs.3-5; Denmark, Maastrichtian. A24-5
- bergeri, Cyclagelosphaera ROTH 1978; p.746, holotype: Perch-Nielsen, K., 1968, pl.26, figs.3-5; Denmark, Maastrichtian. A24-5
- Hagius ROTH 1978; p.746; type species: Coccolithites circumradiatus STOVER 1966. A24-5
- Hagius circumradiatus (STOVER 1966) ROTH 1978; pp.746,748 (ex Coccolithites); type species of Hagius. A24-5
- circumradiatus, Hagius (STOVER 1966) ROTH 1978; pp.746,748 (ex Coccolithites); type species of Hagius. A24-5
- Lithraphidites praequadratus ROTH 1978; p.749, pl.3, fig.1; NW Atlantic, Maastrichtian. A24-5
- praequadratus, Lithraphidites ROTH 1978; p.749, pl.3, fig.1; NW Atlantic, Maastrichtian. A24-5
- Pseudomicula PERCH-NIELSEN 1978; pp.350; type species: Pseudomicula quadrata PERCH-NIELSEN 1978. A25-8
- Pseudomicula quadrata PERCH-NIELSEN 1978; pp.350,351, pl.7, figs.6,9; Egypt, Maastrichtian; type species of Pseudomicula. A25-8
- quadrata, Pseudomicula PERCH-NIELSEN 1978; pp.350,351, pl.7, figs.6,9; Egypt, Maastrichtian; type species of Pseudomicula. A25-8
- Towei rotundus PERCH-NIELSEN 1978; p.352, pl.18, fig.15; Egypt, Eocene (NP 11). A25-8
- rotundus, Towei PERCH-NIELSEN 1978; p.352, pl.18, fig.15; Egypt, Eocene (NP 11). A25-8
- Sphenolithus editus PERCH-NIELSEN 1978; pp.352,353, pl.20, fig.12; Egypt, Eocene (NP 11). A25-8
- editus, Sphenolithus PERCH-NIELSEN 1978; pp.352,352, pl.20, fig.12; Egypt, Eocene (NP 11). A25-8

- Parhabdolithus pseudobelgicus MEDD 1979; pp.44,45, pl.9, fig.6; England, Oxfordian. A26-1
- pseudobelgicus, Parhabdolithus MEDD 1979; pp.44,45, pl.9, fig.6; England, Oxfordian. A26-1
- Zeugrhabdotus bussoni (NOEL 1956) MEDD 1979; pp.45,46; (ex Zygodolithus). A26-1
- bussoni, Zeugrhabdotus (NOEL 1956) MEDD 1979; pp.45,46; (ex Zygodolithus). A26-1
- Stradnerlithaeae MEDD 1979 (tribe); p.47. A26-1
- Stradnerlithus asymmetricus (ROOD, HAY & BARNARD 1971) MEDD 1979; p.47, (ex Diadozygus). A26-1
- asymmetricus, Stradnerlithus (ROOD, HAY & BARNARD 1971) MEDD 1979; p.47 (ex Diadozygus). A26-1
- Stradnerlithus rotatus (ROOD, HAY & BARNARD 1971) MEDD 1979; p.48 (ex Diadozygus). A26-1
- rotatus, Stradnerlithus (ROOD, HAY & BARNARD 1971) MEDD 1979; p.48 (ex Diadozygus). A26-1
- Stradnerlithus sattinii MEDD 1979; p.48, pl.4, fig.4; England, Oxfordian. A26-1
- sattinii, Stradnerlithus MEDD 1979; p.48, pl.4, fig.4; England, Oxfordian. A26-1
- Stradnerlithus escovillensis (ROOD & BARNARD 1972) MEDD 1979; p.48 (ex Diadozygus). A26-1
- escovillensis, Stradnerlithus (ROOD & BARNARD 1972) MEDD 1979; p.48 (ex Diadozygus). A26-1
- Stradnerlithus octoradiatus MEDD 1979; p.49, pl.4, fig.2; England, Kimmeridgian. A26-1
- octoradiatus, Stradnerlithus MEDD 1979; p.49, pl.4, fig.2; England, Kimmeridgian. A26-1
- Diadorhombus scutulatus (MEDD 1971) MEDD 1979; p.50 (ex Zygodolithus). A26-1
- scutulatus, Diadorhombus (MEDD 1971) MEDD 1979; p.50 (ex Zygodolithus). A26-1
- Stephanolithaeae MEDD 1979 (tribe); p.50. A26-1
- Stephanolithion bigoti DEFLANDRE 1939 ssp. maximum MEDD 1979; p.51, pl.4, fig.6; England, Oxfordian. A26-1

- bigoti, Stephanolithion DEFLANDRE 1939 ssp. maximum MEDD 1979; p.51, pl.4, fig.6; England, Oxfordian. A26-1
- maximum (ssp.) MEDD 1979, Stephanolithion bigoti DEFLANDRE 1939; p.51, pl.4, fig.6; England, Oxfordian. A26-1
- Stephanolithion speciosum DEFLANDRE 1954 ssp. elongatum MEDD 1979; pp.52,53, pl.4, fig.9; England, Bathonian. A26-1
- speciosum, Stephanolithion DEFLANDRE 1954 ssp. elongatum MEDD 1979; pp.52,53, pl.4, fig.9; England, Bathonian. A26-1
- elongatum (ssp.) MEDD 1979, Stephanolithion speciosum DEFLANDRE 1954; pp.52,53, pl.4, fig.9; England, Bathonian. A26-1
- Stephanolithion carinatum MEDD 1979; p.53, pl.4, fig.8; England, Oxfordian. A26-1
- carinatum, Stephanolithion MEDD 1979; p.53, pl.4, fig.8; England, Oxfordian. A26-1
- Proculithus MEDD 1979; p.54, type species: Carinolithus fistulatus PRINS 1969 (nom. nud.) A26-1
- Proculithus fistulatus PRINS 1969 ex MEDD 1979; pp.54,55, pl.10, fig.8; England, Toarcian. A26-1
- fistulatus, Proculithus PRINS 1969 ex MEDD 1979; pp.54,55, pl.10, fig.8; England, Toarcian. A26-1
- Proculithus charlottei MEDD 1979; pp. 55, 56, pl.11, fig.9; England, Oxfordian. A26-1
- charlottei, Proculithus MEDD 1979; pp.55,56, pl.11, fig.9; England, Oxfordian. A26-1
- Proculithus expansus MEDD 1979; p.56, pl.11, fig.1; England, Oxfordian. A26-1
- expansus, Proculithus MEDD 1979; p.56, pl.11, fig.1; England, Oxfordian. A26-1
- Millbrookia MEDD 1979; pp.56,57; type species: Millbrookia perforata MEDD 1979. A26-1
- Millbrookia perforata MEDD 1979; p.57, pl.11, fig.2; England, Oxfordian; type species of Millbrookia. A26-1
- perforata, Millbrookia MEDD 1979; p.57, pl.11, fig.2; England, Oxfordian; type species of Millbrookia. A26-1
- Millbrookia virgata MEDD 1979; pp.57,58, pl.11, fig.7; England, Oxfordian. A26-1
- virgata, Millbrookia MEDD 1979; pp.57,58, pl.11, fig.7; England, Oxfordian. A26-1

- Carinolithus clavatus (DEFLANDRE 1954) MEDD 1979; p.59 (ex Rhabdolithus). A26-1
- clavatus, Carinolithus (DEFLANDRE 1954) MEDD 1979; p.59 (ex Rhabdolithus). A26-1
- Carinolithus sceptrum (DEFLANDRE 1954) MEDD 1979; p.59 (ex Rhabdolithus). A26-1
- sceptrum, Carinolithus (DEFLANDRE 1954) MEDD 1979; p.59 (ex Rhabdolithus). A26-1
- Cleistorhabdus moorei MEDD 1979; pp.61,62, pl.5, fig.3; England, Oxfordian. A26-1
- moorei, Cleistorhabdus MEDD 1979; pp.61,62, pl.5, fig.3; England, Oxfordian. A26-1
- Hemipodorhabdus conjugatus MEDD 1979; p.62, pl.5, fig.12; England, Oxfordian. A26-1
- conjugatus, Hemipodorhabdus MEDD 1979; p.62, pl.5, fig.12; England, Oxfordian. A26-1
- Tetrapodorhabdus shawensis MEDD 1979; p.63, pl.6, fig.11; England, Bajocian. A26-1
- shawensis, Tetrapodorhabdus MEDD 1979; p.63, pl.6, fig.11; England, Bajocian. A26-1
- Octopodorhabdus magnus (BLACK 1971) MEDD 1979; p.64 (ex Octocyclus). A26-1
- magnus, Octopodorhabdus (BLACK 1971) MEDD 1979; p.64 (ex Octocyclus). A26-1
- Dekapodorhabdus MEDD 1979; p.65; type species: Dekapodorhabdus typicus MEDD 1979. A26-1
- Dekapodorhabdus typicus MEDD 1979; p.65, pl.6, fig.2; England, Oxfordian; type species of Dekapodorhabdus. A26-1
- typicus, Dekapodorhabdus MEDD 1979; p.65, pl.6, fig.2; England, Oxfordian; type species of Dekapodorhabdus. A26-1
- Polypodorhabdus beckii MEDD 1979; p.66, holotype: Medd, A.W., 1971, pl.i, fig.5; England, Oxfordian. A26-1
- beckii, Polypodorhabdus MEDD 1979; p.66, holotype: Medd, A.W., 1971, pl.i, fig.5; England, Oxfordian. A26-1
- Discorhabdus longicornis MEDD 1979; p.70, pl.7, fig.9; England, Oxfordian. A26-1
- longicornis, Discorhabdus MEDD 1979; p.70, pl.7, fig.9; England, Oxfordian. A26-1

B42	<u>Clausicoccus cribellum</u> (BRAMLETTE & SULLIVAN 1961) PRINS 1979; p.N3 (ex <u>Coccolithites</u>).	A27-9
	<u>cribellum</u> , <u>Clausicoccus</u> (BRAMLETTE & SULLIVAN 1961) PRINS 1979; p.N3 (ex <u>Coccolithites</u>).	A27-9
	<u>Clausicoccus fenestratus</u> (DEFLANDRE & FERT 1955) PRINS 1979; p.N3 (ex <u>Discolithus</u>); type species of <u>Clausicoccus</u> .	A27-9
	<u>fenestratus</u> , <u>Clausicoccus</u> (DEFLANDRE & FERT 1955) PRINS 1979; p.N3 (ex <u>Discolithus</u>); type species of <u>Clausicoccus</u> .	A27-9
	<u>Clausicoccus obrutus</u> (PERCH-NIELSEN 1971) PRINS 1979; p.N3 (ex <u>Ericsonia</u>).	A27-9
	<u>obrutus</u> , <u>Clausicoccus</u> (PERCH-NIELSEN 1971) PRINS 1979; p.N3 (ex <u>Ericsonia</u>).	A27-9
	<u>Clausicoccus pauciperforatus</u> (ROTH 1970) PRINS 1979; p.N3 (ex <u>Ericsonia</u>).	A27-9
	<u>pauciperforatus</u> , <u>Clausicoccus</u> (ROTH 1970) PRINS 1979; p.N3 (ex <u>Ericsonia</u>).	A27-9
	<u>Clausicoccus singularis</u> (PERCH-NIELSEN 1971) PRINS 1979; p.N3 (ex <u>Ericsonia</u>).	A27-9
	<u>singularis</u> , <u>Clausicoccus</u> (PERCH-NIELSEN 1971) PRINS 1979; p.N3 (ex <u>Ericsonia</u>).	A27-9
	<u>Clausicoccus subdistichus</u> (ROTH & HAY 1967) PRINS 1979; p.N3 (ex <u>Ellipsolithus</u>).	A27-9
	<u>subdistichus</u> , <u>Clausicoccus</u> (ROTH & HAY 1967) PRINS 1979; p.N3 (ex <u>Ellipsolithus</u>).	A27-9
	<u>Clausicoccus tasmaniae</u> (EDWARDS & PERCH-NIELSEN 1975) PRINS 1979; p.N3 (ex <u>Ericsonia</u>).	A27-9
	<u>tasmaniae</u> , <u>Clausicoccus</u> (EDWARDS & PERCH-NIELSEN 1975) PRINS 1979; p.N3 (ex <u>Ericsonia</u>).	A27-9
	<u>Syracosphaera lunaria</u> STRADNER & FUCHS 1978; pp.496, 497, pl.13, figs.13-16; Austria, Badanian.	A28-6
	<u>lunaria</u> , <u>Syracosphaera</u> STRADNER & FUCHS 1978; pp.496,497, pl.13, figs.13-16; Austria, Badanian.	A28-6

TAXONOMICAL NOTES

by Shirley E. van Heck

B28 (A13-5) : Tetrapodorhabdus decorus.

Barrier introduces T. decorus as a new combination, but this combination had already been introduced in Wise & Wind 1976 (B7, A1-1), and therefore the correct quotation is: Tetrapodorhabdus decorus (DEFLANDRE & FERT 1954) WIND & WISE 1976.

B29 (A14-5) : Cruciplacolithus helis.

In 1961, Stradner introduced Heliorthus tenuis. In 1963, he transferred this species to the genus Coccolithus. However, the combination Coccolithus tenuis already existed, having been introduced by Kamptner in 1937 for a different species. To avoid homonymy, Stradner introduced the name Coccolithus helis for his species.

When Hay and Mohler in 1967 transferred the same species to the genus Cruciplacolithus, they correctly used the name 'tenuis' again, following Art.55 of the ICBN. This article states that, when transferred to another genus.... the specific epithet must be retained or must be reinstated, unless an earlier legitimate specific epithet is available. Therefore, Cruciplacolithus helis (STRADNER 1963) BARRIER 1977 is an objective junior synonym of Cruciplacolithus tenuis (STRADNER 1961) HAY & MOHLER 1967. Consequently, the distinction, made by Barrier (1977) between Cruciplacolithus tenuis and Cruciplacolithus helis, is necessarily incorrect.

B30 (A17-2) : Helicosphaera inversa.

In 1977, Gartner introduced Helicopontosphaera inversa (A5-2), but he did not indicate a holotype. He validated the species in 1979 (A27-7). Therefore, in 1978 the species was still invalid, and consequently also the new combination introduced by Haq and Berggren. In order to validate this combination, it must be introduced again.

B34 (A17-10) : Stauroolithites coroniformis, Tegumentum striatum, Zygodiscus noeli.

B34 (A20-5) : Cyclicargolithus reticulatus, Pontosphaera japonica, Pontosphaera ovata.

B35 (A20-5) : Pontosphaera vigintiforata.

B35 (A20-6) : Chiastozygus fessus, Reinhardtites biperforatus.

All of these new combinations have merely been mentioned in species lists, with the addition nov. comb., but without mentioning the basionym, and without giving a reference to the author and original publication, as is required by Art.33 of the ICBN.

The combinations Chiastozygus fessus and Reinhardtites biperforatus are validated on p. C-5 of this issue of the INA Newsletter.

B35 (A20-8) : Braarudosphaera lakhpatensis.

This name was merely mentioned with the addition n.sp., but no description and no figure was given, which is in conflict with Art.34 of the ICBN.

B37 (A26-1) : Actinozygus crux.

As a basionym was cited: Discolithus crux DEFLANDRE & FERT 1952. However, in this publication no description was given, and therefore the species was invalid. The species was described in 1954 by Deflandre, in Deflandre & Fert, and was thus validated. Therefore, the correct citation is not Actinozygus crux (DEFLANDRE & FERT 1952) MEDD 1979, but (in full): Actinozygus crux (DEFLANDRE & FERT 1952 ex DEFLANDRE in Deflandre & Fert 1954) MEDD 1979. Fortunately, the ICBN allows this to be abbreviated to Actinozygus crux (DEFLANDRE 1954) MEDD 1979. The wrong citation has no consequences for the validity of the new combination.

B39 (A26-1) : Proculithus charlottei

To avoid erroneous 'corrections': the name charlottei in this case is not a girl's name, but it is derived from the name of some pastry, to which the species seems to have some resemblance; the termination therefore need not be feminine.

VALIDATION OF *CHIASTOZYGUS FESSUS* AND *REINHARDTITES BIPERFORATUS*

SAMIR SHAFIK

It has been brought to my attention by Miss S.E. van Heck that the names *Chiastozygus fessus* and *Reinhardtites biperforatus* which were proposed by Shafik (1978) are invalid under ICBN Art 33. These names are herein validated.

Genus *Chiastozygus* Gartner 1968

Type species.-*Zygodiscus? amphipons* Bramlette & Martini, 1964, *Micropaleontology*, vol. 10 (3), pp. 302-333, pl. 4, figs 9-10.

Chiastozygus fessus (Stover 1966) n. comb.

Basionym: *Discolithus fessus* Stover, 1966, *Micropaleontology*, vol. 12 (2), pp. 142-143, pl. 2, figs 17-21, pl. 8, fig. 16.

Genus *Reinhardtites* Perch-Nielsen 1968

Type species.-*Rhabdolithus anthophorus* Deflandre, 1959, *Revue Micropaleontol.*, vol. 2, p. 137, pl. 1, figs 21-22.

Reinhardtites biperforatus (Gartner 1968) n. comb.

Basionym: *Zygodiscus biperforatus*, 1968 *Univ. Kans. Paleont. Contrib.*, Protista, art. 1, pp. 31-32, pl. 14, figs 15-16, pl. 17, figs 1-2, pl. 18, figs 20-21, pl. 19, fig. 4, pl. 20, figs 19-20, pl. 21, fig. 5, pl. 26, fig. 5.

References

- Bramlette, M.N., & Martini, E., 1964, The great change in calcareous nannoplankton fossils between the Maastrichtian and Danian: *Micropaleontology*, vol. 10 (3), pp. 291-322.
- Deflandre, G., 1959, Sur les nannofossiles calcaires et leur systematique: *Revue Micropaleontol.*, vol. 2, pp. 127-152.
- Gartner, S., 1968, Coccoliths and related calcareous nannofossils from Upper Cretaceous deposits of Texas and Arkansas: *Univ. Kans. Paleont. Contrib.*, Protista, art 1, pp. 1-56.
- Perch-Nielsen, K., 1968, Der Feinbau und die Klassifikation der Coccolithen aus dem Maastrichtien von Danemark: *K. Danske Videnskabernes Selskab, Biol. Skrifter*, vol. 16 (1), pp. 1-96.
- Shafik, Samir, 1978, A new nannofossil zone based on the Santonian Gingin Chalk, Perth Basin, Western Australia: *BMR Journal of Australian Geology & Geophysics*, vol. 3, pp. 211-226.
- Stover, L.E., 1966, Cretaceous coccoliths and associated nannofossils from France and the Netherlands, *Micropaleontology*, vol. 12 (2), pp. 133-167.



SHORT NOTES

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Dr. Samtleben's reprint of his Leg 41 publication (A18-7) was accompanied by a note stating some corrections. This note seems interesting enough to all nannoplankton workers. Therefore, Dr. Samtleben was requested permission to include this note in the Newsletter. This permission was kindly granted, and, accordingly, the note is reproduced below.

PLIOCENE-PLEISTOCENE COCCOLITH ASSEMBLAGES FROM THE SIERRA LEONE RISE

SITE 366, LEG 41 : some corrections.

(Init. Rep. DSDP, vol.41, suppl., 1978.)

By C. Samtleben

On the long journey which my manuscript underwent in order to become a short publication some passages of the original text have been altered by helpful persons, presumably in the commendable intention to improve my poor school English. In some places the meaning of the text has therefore unfortunately been altered. In the following four cases in which the change of meaning is too strong a re-alteration is necessary:

1. page 913, right column, line 13
insert: "Species which appear in the same factor with high factor loading have in common the properties which represent the meaning of the factor. For this process the samples have been divided into two groups:"
delete: "using the results of factor analysis"
2. page 919, left column, line 17
delete: "The occurrence of the low numbers..."
insert: "The congruence of the small maximum..."
3. page 920, left column, line 8
delete: "... because *G. oceanica*..."
insert: "... which eventually as the better adapted form..."
4. page 920, left column, line 19
delete: "A correlation..."
insert: "By this a certain congruency..."

Because science has been in progress since the completion of this article, some identifications of coccolith species are wrong and have to be corrected:

In Table 1 (page 915) the identification of *Gephyrocapsa ericsonii* below Sample 1 cc is wrong. The specimens belong to *G. sinuosa* HAY & BEAUDRY, *G. margereli* BREHERET, and at least one new species. Consequently the specimen on Plate 3, Figure 11 is not *G. ericsonii* but *G. margereli* BREHERET.