Editorial Committee
S.E. van Heck
UEE/311
Shell-Mex House, Strand
London WC 2R ODX
U.K.

Secretary / Treasurer
A.J.T. Romein
Instituut voor Aardwetenschappen
Budapestlaan 4
Postbus 80.021
3508 TA Utrecht
The Netherlands

Bank account:
55.53.90.101 Algemene Bank Nederland
Postal account (post giro): 4198913

CONTENTS

General information p. 50
Editorial p. 51
Finances p. 52
INA Meeting in Vienna p. 53-54
Bibliography and taxa of calcareous nannoplankton IV p. 55-81
J.C. Steinmetz
Discoaster multiradiatus in the Paleocene of S.E. England p. 82-83
A. Godfrey & A. Lord
New members, changes of addresses p. 83

ENCLOSED:
- INA Meeting in Vienna 1985 (second circular)
- List of addresses
!!! NOTE !!

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++SALES OFFICE

Separate issues of the INA Newsletter can be obtained from the Secretary/Treasurer. Price per issue is:
- for non-members Dfl. 25,-
- for members Dfl. 17,50
- for student members Dfl. 5,-

+++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++Mailing POLICY

Recent issues will be mailed by surface mail for countries inside Europe, by air-mail or by SAL for countries outside Europe.
Back-issues will be mailed by surface mail, unless the extra costs for air-mail are paid to the treasurer.

++++++++++++++++++++++H+++++++++++++++++++++++++++++++++++++++

MEMBERSHIP

Applications for membership of the International Nannoplankton Association should be directed to the Secretary/Treasurer.
Annual dues: Dfl. 35,-
* Those who pay their dues in U.S. dollars($ 12),are urged to send them to John Steinmetz(Marathon Oil, Denver Rea.Center, P.O.269,Littleton,Col.,U.S.A.) checks or money orders should be made out to INA: no account- or banknumber is necessary.
* Students can become a member for a reduced price (Dfl.10,-; US $ 4); please send a confirmation of your student-status when applying for membership.

+++++++++++++++++++++++++++++++·+++++++++++H·+++++++++++++++++++++++

NEXT ISSUE

Contributions for the next issue of the INA Newsletter should be received before March 1984. Please send your contributions to: The editor of the INA Newsletter,S.E.van Heck (Address: see front page).

+++++++++++++++++++++++++++++++·!·+++++++++++++++++++++++++++++++COPY RIGHT

Any part of the newsletter may be reproduced for scientific purposes; in case of non-private use the source and authors should be clearly mentioned.

+++++++++++++++++++++++++++++++·!·+++++++++++++++++++++++++++++++REPRINTS

Please send reprints of your latest articles to John Steinmetz (Address see above), in order to keep the newsletter up to date!!

+++++++++++++++++++++++++++++++·!·+++++++++++++++++++++++++++++++INFORMATION TO CONTRIBUTORS

Manuscripts should not exceed four pages. They will be reproduced in the INA Newsletter without being re-typed. Hence the authors are entirely responsible for the contents and quality of their contributions. Manuscripts of poor quality can be refused by the editor.
Format: Manuscripts should be typed on A4 (this format); a blank margin of at least 2.5cm (1 inch) should border the upper, the left and the right side of each page, and the margin along the lower side should be 3.5 cm (1.5 inch).
Do NOT USE DOUBLE SPACING, as this takes up too much space!

INA Newsletter vol.6 - 1984
EDITORIAL

At the early meet of the International Nannoplankton Association (Rijswijk, Orleans, Copenhagen) the INA Newsletter was discussed with the members present. Most people agreed that the contents of the Newsletter were more important than its looks. In other words, it was felt there was no need for yet another glossy magazine at high costs, and we should keep it as simple as possible. Over the past few years however, more and more people have asked us to include photoplates and suggested that a cover for the Newsletter would be an improvement. Now that the number of members has grown, the financial situation is such that we can introduce some changes.

Starting with the next issue therefore, the Newsletter will get a cover, which we hope makes it more resistant to wear and tear.

Furthermore, we have decided to introduce a single photoplate as an experiment. This will enable us to realise an idea we have had for a long time, and which we have now labelled the UFO page(s). In the UFO pages, authors can depict Unidentified Fossil (or Floating?) Objects, to consult their colleagues. All of us have come across some odd forms now and then, not being able to find them in literature, and wondering if anybody else had ever come across it or whether it might be a new species. Next time you come across one of these, take a picture, put it in the Newsletter with the locality and approximate age, and what other information you can or want to give on it. Other people may know where it has been published, or they may have found it as well and can add their data to yours.

Introduction of a new species may follow, with a reduced chance of introducing synonyms. Of course the photoplate may also be used to print photographs accompanying other contributions to the Newsletter. In this way, it will be possible to publish new species in the Newsletter.

By doing this, we hope that some people will be encouraged to publish their findings through short contributions, which normally is not encouraged by other journals.

Finally we have decided to introduce a STUDENTS FEE next year. Irrespective of age, anybody who is a student is entitled to a reduction, and pays only Dfl 10,- (or US $ 4,-). The only condition being that the fee is accompanied by some official university document stating that the person is a registered student.

This issue will be accompanied with a separate, updated list of addresses. We have chosen the format such, that you only need to make a copy of it to obtain labels that can be used to send off your reprints!

S.v.H.

-----------------------------
INA Newsletter vol. 6 - 1984  51
FINANCES

Credits and debits in the period November 1983 - November 1984

Credit, 1-11-83: Dfl. 3601,-

<table>
<thead>
<tr>
<th>Date</th>
<th>Amount</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>17-11-83</td>
<td>Dfl. 417,-</td>
<td>Printing costs vol.5-2</td>
</tr>
<tr>
<td>1-12-83</td>
<td>Dfl. 144,-</td>
<td>Mailing costs</td>
</tr>
<tr>
<td>30-1-84</td>
<td>Dfl. 55,-</td>
<td>Bot. Nomenclature</td>
</tr>
<tr>
<td>17-5-84</td>
<td>Dfl. 714,-</td>
<td>Printing costs back-issues</td>
</tr>
<tr>
<td>7-6-84</td>
<td>Dfl. 300,-</td>
<td>Printing costs vol.6-1</td>
</tr>
<tr>
<td>8-6-84</td>
<td>Dfl. 283,-</td>
<td>Mailing costs</td>
</tr>
</tbody>
</table>

Dfl. 1913,-

In: Dues: Dfl. 4363,-

Donation Phillips Petr. Expl. & Prod: Dfl. 285,-

Dfl. 4648,-

Credit, 1-11-84: Dfl. 6436,-

<table>
<thead>
<tr>
<th>Volume</th>
<th>Copies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vol.1-1</td>
<td>3 copies</td>
</tr>
<tr>
<td>Vol.2-1</td>
<td>2 copies</td>
</tr>
<tr>
<td>Vol.2-2</td>
<td>3 copies</td>
</tr>
<tr>
<td>Vol.3-1</td>
<td>5 copies</td>
</tr>
<tr>
<td>Vol.3-2</td>
<td>42 copies</td>
</tr>
<tr>
<td>Vol.4-1</td>
<td>32 copies</td>
</tr>
<tr>
<td>Vol.4-2</td>
<td>36 copies</td>
</tr>
<tr>
<td>Vol.5-1</td>
<td>18 copies</td>
</tr>
<tr>
<td>Vol.5-2</td>
<td>40 copies</td>
</tr>
<tr>
<td>Vol.6-1</td>
<td>50 copies</td>
</tr>
</tbody>
</table>

Members, 1-11-84: 217

******************************************************************************
** DUES                          **
**                                  **
** The annual dues for 1985 are Dfl. 35,- ($12). If you wish **
** to stay a member of INA and to receive the newsletter, **
** PAY YOUR DUES BEFORE DECEMBER 31 !!!!!!! **
** Those of you who submit their dues in U.S. dollars, are **
** urged to send them to John Steinmetz (Marathon Oil, **
** Denver Res. Center, P.O. 269, Littleton, Col. U.S.A.); checks **
** or money orders should be made out to INA; no account-. **
** or bank number is necessary. **
******************************************************************************

The Secretary

--------------------------------------
52 INA Newsletter vol. 6 - 1984
Some 45 members of INA have shown their interest in a meeting in Vienna in September 1985. There are some "old hands" like H.Stradner, W.W.Hay, H.Manivit, B.prins and myself and many "young hands" from 20 countries on 5 continents. The proposed dates (19.9-21/22.9) suited 2/3 of them, the remaining 1/3 would prefer a meeting from 10.9-13.9 or in August, so

19-21/22 Sept. it will be.

The main interests of those who sent in the form:

<table>
<thead>
<tr>
<th>Interest</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biostratigraphy</td>
<td>41</td>
</tr>
<tr>
<td>Systematics</td>
<td>22</td>
</tr>
<tr>
<td>living nannos</td>
<td>17</td>
</tr>
<tr>
<td>Evolution</td>
<td>20</td>
</tr>
<tr>
<td>Biogeography</td>
<td>32</td>
</tr>
<tr>
<td>Ecology</td>
<td>1</td>
</tr>
<tr>
<td>Diagenesis</td>
<td>2</td>
</tr>
</tbody>
</table>

Also interested in silicoflagellates: 13

Intending to present a talk: 16

poster: 9

talk or poster: 7

32, a meeting of activists....

There is a certain discrepancy between the interests of the members and the talks/posters offered. So many are interested in "systematics, living nannoplankton, evolution, biogeography", yet talks/posters deal mainly with some aspects of biostratigraphy, which, of course is one of the main interests of nearly all wishing to attend too. We will try to motivate some colleagues to talk about those topics that are asked for but not treated.

The possibility of studying the collections of Kamptner and Stradner are much appreciated:

29 want to see Stradner's collection
25 want to see Kamptner's collection
16 colleagues are willing to bring material/slides, from which they described new species. This poses an organisational problem. We might have to extend the period of time in which the collections are accessible for study - probably also on sept. 23 & 24, after the actual meeting. More about this with the next circular.

The excursion would be appreciated by some 30 applicants. More about this with the next circular.

The following "vehicles" have been suggested by the 36 who wanted to see some "proceedings" printed:

INA-Newsletter - Special Issue: 3
Abh. Geol. Bundesanstalt, Wien: 2
Utrecht Micropal. Bull.: 2

INA Newsletter vol.6 - 1984
We will take up contact with the various editors. So far it looks as if we are going to make an effort to get the manuscripts printed - so START WRITING. We will give you the details about the format in the next INA Newsletter.

ABSTRACTS: The abstracts will be published as a special issue of the INA Newsletter. For this we need your COPY-READY ABSTRACT by MAY 31, 1985. For format see "Information to contributors" in the INA Newsletter, on page 2 of each issue. The abstracts should be 1-4 pages including text-figures but no photographs.

POSTERS: The following space is available for posters:

movable: 2x 1.50x1.30, and 2x 2.40x1.50 (h.=1.50)
not movable: 1.50x0.90 (series of max.9) (h.=1.50) (in room where microscopes will be available)

There is plenty of space for all posters so far announced and even a few more.

REGISTRATION: Send in form in INA Newsletter of spring 1985 by JUNE 15

ACCOMMODATION: Student hotel or hotel within walking distance of the meeting place. A reservation-card will be sent to those who have sent back the first circular. The rest is up to YOU.

LANGUAGE: If ever possible, ENGLISH (You still have a chance to learn for another year).

MEETING PLACE: Paläontologisches Institut der Universität Wien, Universitätsstrasse 7, A-1010 Vienna, Austria.

REGISTRATION FEE: US $ 50 or equivalent in Austrian Schillings - to be paid at arrival.

EXCURSION: on Sept. 22
Costs: ca. US $ 20 (Bus and lunch in a restaurant).

EVENINGS: We will organise one evening at a "HEURIGEN" (place in the outer parts of Vienna, where they serve the last year's wine and "simple food"). Tickets for the opera are difficult to get, but those interested should indicate their interest in their registration form and we will try to get tickets. The program is not yet out.

K. Perch-Nielsen
ALMGREN, A.A., & FILEWICZ, M.V. 1984
Benthic foraminiferal and calcareous nanofossil biostratigraphy of the Markley Canyon fill.
Pacific Section AAPG, S.V. 1, pp. 115-124, 3 figs., 1 tb.

Un exemple de corrélation biostratigraphique entre échelles marines et continentales dans l'Eocène: la coupe de Pontils (bassin de l'Ebre, Espagne). (Biostratigraphic correlations between marine and continental Eocene time-scales: the Pontils section (Ebre Basin, Spain).
(In French with English abstract, and plate and figure captions.)

ARNAL, R.E. 1984
The Mohnian-Luisian boundary in the Coccolithus miopelagicus Subzone, with new and related species of foraminifers.

Sediments tertiaires et quaternaires du plateau abyssal du Cap Vert. (Tertiary and Quaternary sediments from the Cape Verde abyssal plateau).
(In French with English, and plate, figure, and table captions.)

BALDI, T. 1984
The terminal Eocene and Early Oligocene events in Hungary and the separation of an anoxic, cold Paratethys.

BARNES, V.E. 1971
Age of Asian tektites.
[nanofossils by L.A. Smith.]

BARRON, J.A., BUKRY, D., & POORE, R.Z. 1984
Correlation of the middle Eocene Kellogg Shale of northern California.
1. BELANGER, P.E. 1982
Paleo-oceanography of the Norwegian Sea during the past 130,000 years: coccolithophorid and foraminiferal data.
-Boreas, 11: 29-36, 4 figs.

2. BERGGREN, W.A., & AUBRY, M.-P. 1984
Rb-Sr glauconite isochron of the Eocene Castle Hayne Limestone, North Carolina: further discussion.

3. BERRY, K.D., & MILLER, P.L. 1984
Mesozoic biostratigraphy, Vizcaíno Peninsula and Cedros Island, Baja California Sur, Mexico.

Paleomagnetic study of Sicily: consequences for the deformation of Italian and African margins over the last 100 million years.

5. BEU, A.G., & EDWARDS, A.R. 1984
New Zealand Pleistocene and late Pliocene glacioeustatic cycles.
-Palaeogeogr., Palaeoclimatol., Palaeoecol., 46(1-3): 119-142, 9 figs.

Stratigraphic correlation in Indonesia.
-SEAPEX Program, Offshore South East Asia Conference, Paper 9, pp. 1-14, 1 pl., 1 fig.

7. BLACK, M. 1971
Coccoliths of the Speeton Clay and Sutterby Marl.

8. BRABB, E.E., McDougall, K., & POORE, R.Z. 1983
New data on the age of Lepidocyclina in California.

The lithostratigraphy of the English Chalk Rocks.

10. CHAMLEY, H. 1984
Les paléoenvironments à la lumière des données océanologiques modernes. (The paleoenvironments deduced from recent oceanological data).
(In French with English abstract and figure captions.)
1. 
CHAVE, A.D. 1984
Lower Paleocene - Upper Cretaceous magnetostratigraphy, sites 525, 527, 528, 529, Deep Sea Drilling Project Leg 74.

2. 
CHAVE, K.E. 1984
Physic and chemistry of biomineralization.

3. 
LAHONDERE, J.-C., & MAGNÉ, J.
Age post-Oligocene de la mise en place d'éléments allochtones ultra-tellians au Sud-Ouest de Constantine (Algérie). (Post-Oligocene displacement of Ultra-Tellian Cretaceous - Eocene allochthonous units, southwest of Constantine (Algeria)).
-C.R. Acad. Sci. Pars 297(9): 735-742, 3 figs., 2 tbs. (In French with English abstract, and figure and table captions.)

4. 
COTILLON, P., & RIO, M. 1984
Cyclicité comparée du Crétacé inférieur pelagique dans les chaînes subalpines méridionales (France SE), l'Atlantique central (Site 534 D.S.D.P.) et le Golfe du Mexique (Sites 535 et 540 D.S.D.P.). Implications paléoclimatiques et application aux corrélatons stratigraphiques transtéthysiennes. (Comparison between the cyclicity of pelagic early Cretaceous successions in the southern Subalpine Ranges (SE France), Central Atlantic (Site 534 D.S.D.P.) and Gulf of Mexico (Sites 535 and 540 D.S.D.P.). Paleoclimatic consequences and application to transtethyan stratigraphical correlations).

5. 
DEAN, W.E., HAY, W.W., & SIBUET, J.-C. 1984
Geologic evolution, sedimentation, and paleoenvironments of the Angola Basin and adjacent Walvis Ridge: synthesis of results of Deep Sea Drilling Project Leg 75.

6. 
DRIEVER, B.W.M. 1984
The terminal record of Discoaster in the Mediterranean and in The Atlantic DSDP site 397, and the Pliocene-Pleistocene boundary.

7. 
FARINACCI, A. 1983
Catalogue of calcareous nannofossils, vol. 11.

INA Newsletter vol. 6 - 1984
<table>
<thead>
<tr>
<th>A205</th>
<th>1</th>
<th>FARIS, M.</th>
<th>1984</th>
<th>strat. CRET-TERT boundary Africa.N.</th>
</tr>
</thead>
</table>
|      | 2 | FLESSA, K.W. | 1983 | CRET-TERT boundary |}

|      | 3 | FRÖHLICH, F. and scientific staff MD 35 | 1983 | strat. QUAT TERT CRET.U. Indian.O. |
|      | 5 | GARTNER, S., & JIANG, M.-J. | 1984 | strat. CRET-TERT boundary America.N. |
|      | 6 | GIBSON, T.G., & BYBELL, L.M. | 1984 | abstr. strat. TERT.L. America.N. |
|      |      | Multiple depositional cycles in Bashi and Hatchetigbee formations (Lower Eocene), Alabama. -AAPG Bull., 68(4): 400. |      |                                   |
HAQ, B.U., & TAKAYAMA, T. 1984
Neogene calcareous nannoplankton datum planes and their
 calibration to magnetostratigraphy.
-In: Ikebe, N., & Tsuji, R., Pacific Neogene Datum
 Planes; Contributions to Biostratigraphy and Chronology.
 Univ. of Tokyo Press, pp. 27-33, 3 figs., 2 tbs.

HARDMAN, R.F.P. 1982
Chalk reservoirs of The North Sea.

HAY, W.W., SIBUET, J.-C., et al. 1984
Introduction and explanatory notes, Deep Sea Drilling
 Project Leg 75.
 -In: Hay, W.W., Sibuet, J.-C., et al., Init. Rep. DSDP,
   vol. 75, Part I, pp. 3-25, 12 figs., 6 tbs.

HAY, W.W., SIBUET, J.-C., et al. 1984
Site 530: southeastern corner of the Angola Basin.
 -In: Hay, W.W., Sibuet, J.-C., et al., Init. Rep. DSDP,
   vol. 75, Part I, pp. 29-285, 1 pl., 71 figs., 18 tbs., 2
   apps.
   [nannofossils by J.C. Steinmetz and H. Stradner.]

HAY, W.W., SIBUET, J.-C., et al. 1984
Site 531: Walvis Ridge.
 -In: Hay, W.W., Sibuet, J.-C., et al., Init. Rep. DSDP,
   vol. 75, Part I, pp. 287-294, 8 figs., 1 tb.
   [nannofossils by J.C. Steinmetz and H. Stradner.]

HAY, W.W., SIBUET, J.-C., et al. 1984
Site 532: Walvis Ridge.
 -In: Hay, W.W., Sibuet, J.-C., et al., Init. Rep. DSDP,
   vol. 75, Part I, pp. 295-445, 26 figs., 10 tbs., 2
   apps.
   [nannofossils by J.C. Steinmetz and H. Stradner.]

HOFFMAN, A., & KITCHELL, J.A. 1984
Evolution in a pelagic planktic system: a paleobiologic
 test of models of multispecies evolution.
 -Paleobiol., 10(1): 9-33, 15 figs., 5 tbs.

HOLLIGAN, P.M., VIOLLI , M., HARBOUR, D.S.,
CAMUS, P., & CHAMPAGNE - PHILIPPE, M.
Satellite and ship studies of coccolithophore production
 along a continental shelf edge.

HSU, K.J., LaBRECQUE, J., et al. 1984
Numerical ages of Cenozoic biostratigraphic datum levels:
 results of South Atlantic Leg 73 drilling.

INA Newsletter vol. 6 - 1984
Jiang, M.-J., & Gartner, S. 1984
Neogene and Quaternary calcareous nannofossil biostratigraphy of the Walvis Ridge.

Johnson, D.A., Ledbetter, M.T., & Damuth, J.E. 1983
Neogene sedimentation and erosion in the Amirante Passage, western Indian Ocean.

Johnson, D.A., Ledbetter, M.T., Tappa, E., & Thunell, R. 1984
Late Tertiary/Quaternary magnetostratigraphy and biostratigraphy of Vema Channel sediments.
-Mar. Geol., 88(1/2): 89-100, 6 figs., 2 tbs.

High-resolution stratigraphy in Late Pleistocene/Holocene sediments of the Vema Channel.

Jones, G.D. [discussion]; Harris, W.B., & Zullo, V.A. [reply] 1982
Rb-Sr glauconite isochron of the Eocene Castle Hayne Limestone, North Carolina: discussion and reply.

Joyce, T., Backus, R., Baker, K., Blackwelder, P., et al. 1984
Rapid evolution of a Gulf Stream warm-core ring.

Oligocene-Miocene magnetostratigraphy of the western North Atlantic: age of the middle/late Miocene boundary.

Kidd, R.B., Ruddiman, W.F., & the Leg 94 scientific staff 1983
Sediment drifts and intraplate tectonics in the North Atlantic.

The geology and formation of King's Trough, northeast Atlantic Ocean.

Kim, B.K. 1984
Cenozoic biostratigraphy of South Korea.
-Palaeogeogr., Palaeoclimatol., Palaeoecol., 46(1-3): 85-96, 1 fig., 2 tbs.
<table>
<thead>
<tr>
<th>No.</th>
<th>Author(s)</th>
<th>Year</th>
<th>Title</th>
<th>Journal/Other Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>MATIAS, I., &amp; MARTINELL, J.</td>
<td>1984</td>
<td>Première contribution à la connaissance du nannoplancton calcaire du Pliocène catalan. (First contribution to the knowledge of the calcareous nannoplankton of the Pliocene of Catalunya (Spain)).</td>
<td>Rev. Micropal., 27(1): 43-53, 3 pls., 3 figs. (in French with English abstract and figure captions.)</td>
</tr>
</tbody>
</table>

INA Newsletter vol. 6 - 1984
<table>
<thead>
<tr>
<th></th>
<th>Author(s)</th>
<th>Year</th>
<th>Title</th>
<th>Venue/Conference</th>
<th>Pages/Volume/Figures/Tabs</th>
</tr>
</thead>
</table>

---

INA Newsletter vol. 6 - 1984
OKADA, H., & OKAMURA, M. 1980
Calcareous nanofossils obtained from the Shimanto Belt in Kochi Prefecture.
(In Japanese with English abstract.)

OLSSON, R.K., MILLER, K.G., & UNGRADY, T.E. 1980
Late Oligocene transgression of middle Atlantic Coastal Plain.
-Geology, 8(11): 549-554, 6 figs.

PERCH-NIELSEN, K. 1984 Validation of new combinations.

POORE, R.Z., TAUXE, L., PERCIVAL, S.F., JR., & LabRECQUE, J.L. 1982
Late Eocene- Oligocene magnetostratigraphy and biostratigraphy at South Atlantic DSDP Site 522.
-Geology, 10(10): 508-511, 2 figs.

Oligocene calibration of the magnetic polarity time scale.
-Geology, 10(12): 650-653, 3 figs.

Rade, J. 1970
Interrelation of calcareous nanoplankton and the depositional environments in Gippsland basin, Australia.
-Oil and Gas J., 68(37): 136-139, 3 figs.

RADE, J. 1972
Calcareous nanoplankton in Australian Tertiary.
-Pacific Geol., 4: 27-30, 1 fig.

REYRE, Y. 1983
Objets, principes et fonctions de "Paléo-SIGMA", Système-Images de Gestion Micropaléontologique Automatisée. (Purpose, principles and capabilities of "Paléo-SIGMA", an image-system for management of micropaleontological data.)
(in French with English abstract and figure captions.)

RIO, D., & VILLA, G. 1983
I nannofossili calcarei del cretacico superiore del flysch di Solignano Media Val Taro - Appennino Settentrionale.
(In Italian with English abstract.)

INA Newsletter vol. 6 - 1984
<table>
<thead>
<tr>
<th></th>
<th>Authors</th>
<th>Year</th>
<th>Title</th>
<th>Journal</th>
<th>Volume</th>
<th>Pages</th>
<th>Figures</th>
<th>Tables</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>ROSA, N.</td>
<td>1979</td>
<td>All about ooze.</td>
<td>Oceans, 12(6):</td>
<td>30-33</td>
<td>4 figs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>SIEBURTH, J.M.</td>
<td>1979</td>
<td>Haptophytes and Prasinophytes.</td>
<td>Sea Microbes;</td>
<td>211-224</td>
<td>6 figs.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

INA Newsletter vol. 6 - 1984
1. Steinmetz, J.C. 1984
Bibliography and taxa of calcareous nannoplankton-III.
INA Newsletter, 6(1): 6-37.

The significance of isotopic and paleontologic results
of calcareous nannofossil assemblages from Caribbean core
P6304-4.

Cenozoic calcareous nannofossils from Deep Sea Drilling
Project Leg 75, southeast Atlantic Ocean.
-In: Hay, W.W., Sibuet, J.-C. et al., Init. Rep. DSDP,
vol. 75, Part II, pp. 671-753, 54 pls., 2 figs., 6 tabs., 1 app.

4. Steinmetz, J.C., Barron, E.J., Boersma, A., Keating, B.,
McNulty, C., Sancetta, C., & Stradner, H. 1984
Summary of biostratigraphy and magnetostratigraphy of Deep
Sea Drilling Project Leg 75.
-In: Hay, W.W., Sibuet, J.-C. et al., Init. Rep. DSDP,
vol. 75, Part I, pp. 449-458, 5 figs., 1 tab.

5. Stradner, H., & Steinmetz, J.C., with a contribution
by Svábenika, L. 1984
Cretaceous calcareous nannofossils from the Angola Basin,
Deep Sea Drilling Project Site 530.
-In: Hay, W.W., Sibuet, J.-C. et al., Init. Rep. DSDP,
vol. 75, Part II, pp. 565-649, 52 pls., 6 figs., 8 tabs., 1 app.

6. Takahashi, K., & Ling, H.Y. 1984
Particle selectivity of pelagic tintinnid agglutination.

7. Takayama, T. 1984
Coccolith biostratigraphy of Southeast Asia.
-Kobayashi, T., Toriyama, R., & Hashimoto, W. (eds.),
Geology and Palaeontology of Southeast Asia, vol. 25, pp.
303-304.

Some middle Miocene planktonic microfossil datum planes in
northern Honshu, Japan: their paleoceanographic implications.
-Palaeogeogr., Palaeoclimatol., Palaeoecol., 46(1-3): 71-
84, 7 figs

Fluctuations in marine productivity through time: inverse
relation with terrestrial floras.

INA Newsletter vol. 6 – 1984
UCHIO, T. 1975
(In Japanese with English abstract and figure caption.)

UJIIE, H. 1984
A middle Miocene hiatus in the Pacific region: its stratigraphic and paleoceanographic significance.
-Palaeogeogr., Palaeoclimatol., Palaeoecol., 46(1-3): 143-164, 5 figs., 4 tbs.

VAN DEN BOSCH, W.J. 1983
The Harlingen Field, the only gas field in the Upper Cretaceous Chalk of the Netherlands.

VAN HINTE, J., WISE, S.W., Jr., & DSDP Leg 93 staff. 1983
The continental rise off North America; Deep Sea Drilling Project Leg 93.

VAROL, O. 1984
New Neogene calcareous nannofossil taxa from Malta and southern Turkey.

WATKINS, D.K. 1984
Calcareous nannofossil paleobiogeography of the Cretaceous Greenhorn Sea.

Upper Cretaceous and lower Tertiary chalks of the Albuskje1l area, North Sea: deposition in a slope and base of slope environment.
-Geology, 8(5): 217-221, 3 figs.

WIEGAND, G.E. 1984
Two new genera of calcareous nannofossils from the Lower Jurassic.

WISE, S.W., CIESIELSKI, P.F., MacKENZIE, D.T., WIND, F.H., et al. 1982
Paleontologic and paleoenvironmental synthesis for the Southwest Atlantic Ocean Basin based on Jurassic to Holocene faunas and floras from the Falkland Plateau.

INA Newsletter vol. 6 - 1984
YAMAGUCHI, T., MATSUSHIMA, Y., HIRATA, D. et al. 1983
An unconformity between the Hatsuse and the Miyata formations in Shimomiyata, Miura City.
-Kanagawa - Shizensh Shiryo (Kanagawa Prefecture Natural Science Data); 4: 87-93, 3 figs., 3 tbs.
(In Japanese).

FÜTTERER, D.K. 1984
Pithonelloid calcareous dinoflagellates from the Upper Cretaceous and Cenozoic of the southeastern Atlantic Ocean, Deep Sea Drilling Project Leg 74.

KEUPP, H. 1984
-Paläont. Z., 58(1/2): 9-31, 11 figs.
(In German with English abstract.)

KEUPP, H., & MUTTERLOSE, J. 1984
Organismenverteilung in den D-Beds von Speeton (Unterkreide, England) unter besonderer Berücksichtigung der kalkigen Dinoflagellaten-Zysten (Vertical distribution of organisms in the D-Beds of Speeton (Lower Cretaceous, England) considering the calcareous dinoflagellate cysts.)
-Facies, 10: 153-178, 4 pls., 4 figs.
(In German with English abstract, and plate and figure captions.)

OLSSON, R.K., & YOUSSEFNIA, I. 1979
Cretaceous Calcisphaerulidae from New Jersey.
Apertapetra pemmatoida (DEFLANDRE ex MANIVIT 1965) BLACK 1971; p. 395 (ex Cricolithus).

Aspidolithus bevleri (BUKRY 1969) PERCH-NIELSEN 1984; p. 43 (ex Broinsonia).


Aspidolithus magnacavus (GARTNER 1968) PERCH-NIELSEN 1979; p. 238 (ex Arkhangel'skiiella).


Biantholithus astralis STEINMETZ & STRADNER 1984; p. 676, pl. 52, figs. 1,2; South Atlantic, Angola Basin, DSDP Site 530, Danian, Cruciplacolithus tenuis Zone (MARTINI 1971), Cruciplacolithus tenuis Subzone (BUKRY, 1973, 1975).

Bidiscus gorkae BLACK 1971; pp. 392-393, pl. 30, fig. 1; England, Berriasian and Hauterivian.

Biscutaceae BLACK 1971 (family); p. 392.

Biscutum gartneri BLACK 1971; p. 393, pl. 30, fig. 2; England, Lower Hauterivian to Upper Albian.

Biscutum salebrosum (BLACK 1971) PERCH-NIELSEN 1984; p. 43 (ex Cruciplacolithus).


Bomolithus conicus (PERCH-NIELSEN 1971) PERCH-NIELSEN 1984; p. 42 (ex Meliolithus?).


Bukrylithus ambiguus BLACK 1971; p. 416, pl. 33, fig. 6; England, Hauterivian. Type species of Bukrylithus BLACK 1971.


Calcivascularis jansae WIEGAND 1984; p. 1152, fig. 1; North Atlantic, West of Morocco, DSDP Hole 547B, upper Sinemurian to lower Pliensbachian. Type species of Calcivascularis WIEGAND 1984.

Calculites additus (WIND & WISE in WISE & WIND 1977) PERCH-NIELSEN 1984; p. 43 (ex Phanulithus).


Caterella perstrata BLACK 1971; p. 396, pl. 30, fig. 3; England, Hauterivian. Type species of Caterella BLACK 1971.


Chiastoplacolithus parvus (BARRIER 1977) PERCH-NIELSEN 1984; p. 43 (ex Chiasmolithus).


Chiastozygus striatus BLACK 1971; p. 416, pl. 34, fig. 7; England, Hauterivian.

Chiastozygus tenuis BLACK 1971; p. 416, pl. 34, fig. 8; England, Barremian.


Crepidolithaceae BLACK 1971 (family); p. 394.


Cretarhabdella fragilis BLACK 1971; p. 401, pl. 31, fig. 4; England, Upper Hauterivian to Upper Albian.

Cretarhabdella lateralis BLACK 1971; p. 400, pl. 31, fig. 5; England, Upper Albian. Type species of Cretarhabdella BLACK 1971.

Cretarhabdus barremianus BLACK 1971; p. 402, pl. 31, fig. 3; England, Barremian.

Cretarhabdus multiforus BLACK 1971; p. 402, pl. 31, fig. 1; England, Hauterivian.
B118

Cretarhabdus primus BLACK 1971; pp. 402-403, pl. 31, fig. 2; England, Berriasian to Hauterivian.

Cribosphaera hauteriviana BLACK 1971; p. 421, pl. 33, fig. 8; England, Hauterivian.


Cruciplacolithus brotzenii (PERCH-NIELSEN 1969) PERCH-NIELSEN 1984; p. 42 (ex Ericsonia?).

Cruciplacolithus pinnatus BLACK 1971; p. 397, pl. 30, fig. 5; England, Hauterivian.

Cruciplacolithus salebrosus BLACK 1971; p. 397, pl. 30, fig. 4; England, Berriasian and Hauterivian.

Cyclicargolithus marismontium (BLACK 1964) PERCH-NIELSEN 1984; p. 42 (ex Coccolithus).


Discoaster graviterminatus VAROL 1984; p. 382, figs. 3.10-3.12; Malta, middle Miocene, zones NN6-NN7.


Discoaster tokerae VAROL 1984; p. 383, figs. 3.14-3.15; Malta, middle Miocene, zones NN6-NN7.


Ellipsagelosphaera fasciata (WIND & ČEPEK 1979) PERCH-NIELSEN 1984; p. 43 (ex Watznaueria).

Ellipsagelosphaera forbesii BLACK 1971; pp. 398-399, pl. 30, fig. 9; England, Barremian to Upper Albian.

Ellipsagelosphaera fossacincta BLACK 1971; p. 399, pl. 30, fig. 8; England, Hauterivian to Barremian.

Ellipsagelosphaera geophyrocapsoides BLACK 1971; p. 399, pl. 30, fig. 7; England, Berriasian.

Eproliithus septentrionalis (STRADNER 1963) PERCH-NIELSEN 1984; p. 43 (ex Lithastrinus).


Grantarhabdus meddii BLACK 1971; p. 403, pl. 33, fig. 7; England, Berriasian. Type species of Grantarhabdus BLACK 1971.

Helicosphaera neolo~hota BUKRY in BARRON, BUKRY, & POORE 1984; p. 152, pl. 5, figs. 10-21; California (USA), upper middle Eocene Coccolithus staurion Subzone (CP13c) and Discoaster bifax Subzone (CP14a).


Hemipodorhabdus latiforatus BLACK 1971; p. 404, pl. 31, fig. 6; England, Hauterivian and Aptian. Type species of Hemipodorhabdus BLACK 1971.


Liliasterites angularis ŠVÁBENICKÁ & STRADNER in STRADNER & STEINMETZ 1984; p. 594, pl. 24, figs. 1-4, text-fig. 6A; Bohemia, Czechoslovakia and South Atlantic, Angola Basin, DSDP Site 530, late Turonian. Type species of Liliasterites STRADNER & STEINMETZ 1984.

Liliasterites atlanticus STRADNER & STEINMETZ 1984; p. 594, pl. 22, fig. 7, pl. 23, figs. 1, 2, 4-7, text-fig. 6B; South Atlantic, Angola Basin, DSDP Site 530, late Turonian.

Lithostromation biconvexitas VAROL 1984; p. 383, figs. 3.17-3.19; middle Miocene, zones NN6-NN7; and southern Turkey, late Miocene to early Pliocene, zones NN10-NN15.


Microstaurus lindensis BLACK 1971; p. 405, pl. 32, fig. 1; England, Aptian.
Microstaurus quadratus BLACK 1971; pp. 404-405, pl. 32, fig. 2; England, Berriasian and Hauterivian. Type species of Microstaurus.

Micula praemurus (BUKRY 1973) STRADNER & STEINMETZ 1984; p. 595 (ex Tetralithus).

Micula quadrata (STRADNER 1961) PERCH-NIELSEN 1984; p. 43 (ex Tetralithus).

Micula swastica (sensu PRINS 1977) STRADNER & STEINMETZ 1984; p. 595, pl. 31, figs. 3, 5, 6; South Atlantic, Angola Basin, DSDP Site 530, upper Maastrichtian.

Neocrepidolithus cohenii (PERCH-NIELSEN 1968) PERCH-NIELSEN 1984; p. 43 (ex Cepidolithus).

Nodosella perchnielsoniae (FILEWICZ, WIND, & WISE in WISE & WIND 1977) PERCH-NIELSEN 1984; p. 43 (ex Corollithion).

Nodosella silvaradion (FILEWICZ, WIND, & WISE in WISE & WIND 1977) PERCH-NIELSEN 1984; p. 43 (ex Corollithion).

Octopodorhabdus plethotretus WIND & CEPEK 1979; p. 230-231. Invalid ICBN Art. 34.4.

Octopodorhabdus polytretus WIND & CEPEK 1979; p. 240. Invalid ICBN Art. 34.4.


Orthogonoides hamiltoniae WIEGAND 1984; p. 1155, fig. 2; North Atlantic, west of Morocco, DSDP Hole 547B, upper Sinemurian to lower Pliensbachian. Type species of Orthogonoides WIEGAND 1984.


Percivalia imperfossa BLACK 1971; pp. 416-417, pl. 33, fig. 5; England, Hauterivian to Upper Albian.


Perissocyclus Fletcheri BLACK 1971; pp. 406-407, pl. 32, fig. 3; England, Berriasian.
Perissocyclus nöelae BLACK 1971; pp. 405-406, pl. 32, fig. 6; England, Hauterivian. Type species of Perissocyclus BLACK 1971.

Podorhabdus biperforatus (ROOD, HAY, & BARNARD 1973) PERCH-NIELSEN 1984; p. 43 (ex Discorhabdus).

Podorhabdus septentrionalis BLACK 1971; pp. 407-408, pl. 32, fig. 5; England, Berriasian to Hauterivian.


Pontosphaera inconspicua (SULLIVAN 1964) PERCH-NIELSEN 1984; p. 42 (ex Discolithus).


Polydorhabdus paucisectus BLACK 1971; p. 408, pl. 32, fig. 8; England, Berriasian.

Prediscosphaera arkhangelstyj (REINHARDT 1965) PERCH-NIELSEN 1984; p. 43 (ex Eiffellithus).

Prediscosphaera avitus (BLACK 1973) PERCH-NIELSEN 1984; p. 43 (ex Deflandrius).

Prediscosphaera columnata (STOVER 1966) PERCH-NIELSEN 1984; p. 43 (ex Deflandrius).

Prediscosphaera implumis (BLACK 1973) PERCH-NIELSEN 1984; p. 43 (ex Deflandrius).

Prediscosphaera ponticula (BUKRY 1969) PERCH-NIELSEN 1984; p. 43 (ex Prediscosphaera cretacea ponticula).

Prinsius tenuiculum (OKADA & THIERSTEIN 1979) PERCH-NIELSEN 1984; p. 42 (ex Bisculum?).

Retecapsa angustiforata BLACK 1971; p. 409, pl. 33, fig. 4; England, Barremian.

Retecapsa brightoni BLACK 1971; p. 409, pl. 33, fig. 3; England, Hauterivian. Type species of Retecapsa BLACK 1971.

Retecapsa levis BLACK 1971; p. 410, pl. 33, fig. 1; England, Barremian to Albian.

Retecapsa neocomiana BLACK 1971; p. 410, pl. 33, fig. 2; England, Hauterivian.

Rhabdolithina ampla BLACK 1971; p. 418, pl. 34, fig. 1; England, Aptian.

Rhabdolithina clavulus BLACK 1971; pp. 417-418, pl. 34, fig. 3; England, Berriasian to Hauterivian.

Rhabdolithina excavata BLACK 1971; p. 418, pl. 34, fig. 2; England, Hauterivian to Albian.

Rhabdolithina swinnertoni BLACK 1971; p. 418, pl. 34, fig. 4; England, Aptian.

Rhagodiscus eboracensis BLACK 1971; p. 419, pl. 33, fig. 9; England, Hauterivian.


Rhombolithion duodecostatum (GOY in GOY, NOEL, & BUSSON 1979) PERCH-NIELSEN 1984; p. 43 (ex Diadorthombus).

Rhombolithion horellii (ROOD & BARNARD 1972) PERCH-NIELSEN 1984; p. 43 (ex Diadorthombus).

Rhombolithion octocostatum (ROOD & BARNARD 1972) PERCH-NIELSEN 1984; p. 43 (ex Diadorthombus).


Rotelapillus crenulatus (STOVER 1966) PERCH-NIELSEN 1984; p. 43 (ex Stephanolithion).

<table>
<thead>
<tr>
<th>Taxon Name</th>
<th>Authors</th>
<th>Year</th>
<th>Page(s)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rotelapillus octoradiatus</td>
<td>Gartner</td>
<td>1968</td>
<td>44</td>
<td>(ex Corollithion)</td>
</tr>
<tr>
<td>Scyphosphaera brevis</td>
<td>Varol</td>
<td>1984</td>
<td>380, figs. 3.5-3.7</td>
<td>Malta, middle Miocene, zones NN6-NN7; and southern Turkey, late Miocene to early Pliocene, zones NN10-NN15.</td>
</tr>
<tr>
<td>Scyphosphaera inversiconica</td>
<td>Varol</td>
<td>1984</td>
<td>pp. 380-381, figs. 3.9, 3.13</td>
<td>Malta, middle Miocene, zones NN6-NN7; and southern Turkey, early Pliocene.</td>
</tr>
<tr>
<td>Scyphosphaera quasitubifera</td>
<td>Varol</td>
<td>1984</td>
<td>p. 381, figs. 3.4, 3.8</td>
<td>Malta, middle Miocene, zones NN6-NN7.</td>
</tr>
<tr>
<td>Sollassitaceae</td>
<td>Black</td>
<td>1971</td>
<td>(family); p. 411.</td>
<td></td>
</tr>
<tr>
<td>Sollassites arculatus</td>
<td>Black</td>
<td>1971</td>
<td>p. 413, pl. 31, fig. 9; Berriasian.</td>
<td></td>
</tr>
<tr>
<td>Sollassites hayi</td>
<td>Black</td>
<td>1973</td>
<td>(ex Cruciplacolithus).</td>
<td>A210-3</td>
</tr>
<tr>
<td>Sollassites pinnatus</td>
<td>Black</td>
<td>1971</td>
<td>(ex Cruciplacolithus).</td>
<td>A210-3</td>
</tr>
<tr>
<td>Speetoniaceae</td>
<td>Black</td>
<td>1971</td>
<td>(family); p. 413.</td>
<td></td>
</tr>
<tr>
<td>Speetonia colligata</td>
<td>Black</td>
<td>1971</td>
<td>p. 413, pl. 34, fig. 10; England, Berriasian and Hauterivian. Type species of Speetonia</td>
<td>Black 1971.</td>
</tr>
<tr>
<td>Speetonia nitida</td>
<td>Black</td>
<td>1971</td>
<td>p. 414, pl. 34, fig. 11; England, Hauterivian.</td>
<td></td>
</tr>
<tr>
<td>Staurolithites fibrosus</td>
<td>Black</td>
<td>1971</td>
<td>pp. 419-420, pl. 34, fig. 5; England, Hauterivian.</td>
<td>A203-7</td>
</tr>
<tr>
<td>Staurolithites rectus</td>
<td>Black</td>
<td>1971</td>
<td>p. 419, pl. 34, fig. 6; England, Barremian.</td>
<td>A203-7</td>
</tr>
<tr>
<td>Stephanolithion elongatum</td>
<td>Medd</td>
<td>1979</td>
<td>(ex Stephanolithion speciosum elongatum).</td>
<td>A210-3</td>
</tr>
<tr>
<td>Stephanolithion octum</td>
<td>Roo d &amp; Barnard</td>
<td>1972</td>
<td>(ex Stephanolithion speciosum octum).</td>
<td>A210-3</td>
</tr>
</tbody>
</table>
Stradnerlithus callomonii (ROOD, HAY, & BARNARD 1971)
PERCH-NIELSEN 1984; p. 44 (ex Diadozygus).

Stradnerlithus comptus BLACK 1971; p. 415, pl. 31, fig. 10;


Stradnerlithus ellipticus (BUKRY 1969) PERCH-NIELSEN 1984;
p. 44 (ex Corollithion).

Stradnerlithus fractus (BLACK 1973) PERCH-NIELSEN 1984; p. 44 (ex Corollithion).

Stradnerlithus fragilis (ROOD & BARNARD 1972) PERCH-NIELSEN 1984; p. 44 (ex Actinozygus).

Stradnerlithus langii (ROOD & BARNARD 1972) PERCH-NIELSEN 1984; p. 44 (ex Diadozygus).


Tetrapodorhabdus BLACK 1971; pp. 410-411. Type species:
Tetrapodorhabdus coptensis BLACK 1971.

Tetrapodorhabdus coptensis BLACK 1971; p. 411, pl. 31, fig. 7; England, Albian. Type species of Tetrapodorhabdus BLACK 1971.

Tetrapodorhabdus hunmanbiensis BLACK 1971; p. 411, pl. 31, fig. 8; England, Hauterivian.


Tranolithus macleodiae (BUKRY 1969) PERCH-NIELSEN 1984; p. 44 (ex Zygodiscus).

Tranolithus minimus (BUKRY 1969) PERCH-NIELSEN 1984; p. 44 (ex Zygodiscus).


Triorbis VAROL 1984; p. 381. Type species: Triorbis dizerae
VAROL 1984.
Triorbis dizerae VAROL 1984; p. 382, figs. 3.1-3.3; Malta, middle Miocene, zones NN6-NN7. Type species of Triorbis VAROL 1984.

Triquetrorhabdulus dorsalis VAROL 1984; p. 384, figs. 3.16, 3.20; Malta, middle Miocene, zones NN6-NN7; and southern Turkey, late Miocene to early Pliocene, zones NN10-NN15.

Triquetrorhabdulus farnsworthii (GARTNER 1967) PERCH-NIELSEN 1984; p. 42 (ex Ceratolithus?).

Truncatoscaphus pauciramosus (BLACK 1973) PERCH-NIELSEN 1984; p. 44 (ex Stradnerolithus).

Truncatoscaphus senarius (WIND & WISE in WISE & WIND 1977) PERCH-NIELSEN 1984; p. 44 (ex Corollithion).

Zeugrhabdotus embergeri (NOËL 1959) PERCH-NIELSEN 1984; p. 44 (ex Discolithus).

Zeugrhabdotus pseudanthophorus (BRAMLETTE & MARTINI 1964) PERCH-NIELSEN 1984; p. 44 (ex Zygodiscus?).

Zygodiscus reticulatus BLACK 1971; p. 420, pl. 34, fig. 9; England, Lower Barremian to Upper Albian.

Calcispheres


Carinellum parasolis KEUPP 1984; p. 22, pl. 10, figs. 9, 12; France, Calcaire de Chaussy (Seine-et-Oise), Middle Eocene (Lutetian).


Orthopithonella albatrosiana (KAMPTNER 1963) KEUPP 1984; p. 13; (ex Thoracosphaera).

Pithonella atlantica OLSSON & YOUSSEFNIA 1979; p. 1090, pl. 2, figs. 7-12; New Jersey (USA), Woodbury Formation, Early Campanian.
Pithonella bassriverensis OLSSON & YOUSSEFNIA 1979; p. 1090, pl. 1, figs. 13-16; New Jersey (USA), Bass River Formation, Cenomanian.

Pithonella globosa FÜTTERER 1984; p. 536, pl. 2, figs. 1-9; South Atlantic, Walvis Ridge, DSDP Hole 527, Late Maastrichtian. Range: late-middle Maastrichtian to early Danian.

Pithonella parva FÜTTERER 1984; pp. 536, 537, pl. 3, figs. 1-10, pl. 4, figs. 8-9; South Atlantic, Walvis Ridge, DSDP Hole 527, late Paleocene (NP9). Range: early Paleocene (NP1) to early Pleistocene (NN19).

Pithonella woodburynensis OLSSON & YOUSSEFNIA 1979; p. 1091, pl. 1, fig. 11, pl. 2, figs. 1-6; New Jersey (USA), Woodbury and Merchantville formations, Santonian-Campanian.

**COMMENTS**


2 - A4-8, B18: Cyclococcolithina hirsuta, err. cit. pro Cyclococcolithina hirsuta. The code on reference A4-8 should be changed from (syst) to syst to reflect this new combination.

3 - A72-4, B56, B120: Octopodorhabdus plethotretus WIND & ČEPEK 1979, pp. 230-231, and Octopodorhabdus polytretus WIND & ČEPEK 1979, p. 240 are both invalid under ICBN Art. 34.4 ("When ...two or more different names are proposed simultaneously for the same taxon by the same author, none of them is validly published.").

4 - B121: Bisculum?, err. cit. pro Bisculum?

5 - B124: Stradnerlithus sexiramatus, err. cit. pro Stradnerlithus sexiradiatus.

**CORRECTIONS**

B8: Corollithion perch-nielseniae: pl. 63 should be corrected to pl. 61.

B72: Diadorhombus duodecostatus should be Diadorhombus duodecostatus.
Species names in alphabetical order.

acutus, Chiastozygus?
additus, Calculites
africanus, Toweius
albatrosiana, Orthopithonella (C)
altus, Catinater
ambiguus, Bukry lithus
ampla, Rhadbolithina
angularis, Liliasterites
angustiforata, Retecapsa
arcuat us, Sollasites
arkhangel skyj, Prediscosphaera
astralis, Biantholithus
atlantica, Pithonella (C)
atlanticus, Liliasterites
avitus, Prediscosphaera
baldiae, Corollithion
barremianus, Cretarhabdus
bassriverensis, Pithonella (C)
bevieri, Aspidolithus
biconvexitas, Lithostromation
biperforatus, Podorhabdus
birsuta, Cyclococcocithina
brevis, Scyphosphaera
brightonii, Retecapsa
brotzenii, Cruciplacolithus
callomonii, Stradnerlithus
caravaecaensis, Rotelapillus
clavulus, Rhabdolithina
coheni, Neocrepidolithus
colligata, Speetonia
columnata, Prediscosphaera
comptus, Glaukolithus
comptus, Stradnerlithus
conicus, Bomololithus
coptensis, Tetrapodorhabdus
coronata, Ellipsagelosphaera
crassus, Toweius?
crenulatus, Rotelapillus
deflandrei, Lithostromation
delftensis, Stradnerlithus
desueta, Pontosphaera
dizerae, Triorbis
dorsalis, Triquetrorhabdulus
duodecostatum, Rhombolithion
eboracensis, Rhagodiscus
ellipticus, Stradnerlithus
elongatum, Stephanolithion
emergeri, Zeugrhabdotus
enormis, Aspidolithus
enormis, Pontosphaera
excavata, Rhabdolithina
farnsworthii, Triquetrorhabdulus
fasciata, Ellipsagelosphaera
fenestratus, Perissocyclus
fibrosus, Stauroolithites
fletcheri, Perissocyclus
fossaceptor, Ellipsagelosphaera
fossamortula, Ellipsagelosphaera
fractus, Stradnerolithus
fragilis, Stradnerlithus
fragilis, Cretarhabdella
furtivus, Aspidolithus
gartneri, Biscutum
gephyrocapsoi d, Ellipsagelosphaera
globosa, Pithonella (C)
gorkae, Biscutus
graviterminatus, Discoaster
hamiltoniae, Orthogonoides
hauteriviana, Cribrosphaeraella?
hauteriviana, Cribrosphaera
hayj, Sollasites
horelli, Rhombolithion
hunmanbiensis, Tetrapodorhabdus
imperfossa, Pervicavia
implumis, Prediscosphaera
inconspicua, Pontosphaera
inversiconica, Scyphosphaera
jansae, Calcivascularis
jurassicum, Bicarinellum (C)
langii, Stradnerlithus
lateralis, Cretarhabdella
latielliptica, Pontosphaera
latiforatus, Hemipodorhabdus
latoculata, Pontosphaera
leptoporus centrovalis, Calcidiscus
levis, Retecapsa
limbatum, Calcigonellum (C)
lindensis, Microstaurus
macleodiae, Tranolithus
magnacavus, Aspidolithus
marismontium, Cyclicargolithus
meddii, Grantarhabdus
megastypus, Discoaster
minimus, Tranolithus
multifor us, Cretarhabdus
munitus, Rotelapillus
neocomiana, Retecapsa
neolophota, Helicosphaera
nitida, Speetonia
noelae, Perissocyclus
ocellata, Pontosphaera
octocostatum, Rhombolithion
octoradiatus, Rotelapillus
octum, Stephanolithion
parasolpis, Carinellum (C)
parcus constrictus, Aspidolithus

INA Newsletter vol. 6 - 1984
parcus expansus, Aspidolithus parva, Pithonella (C)
pauca, Pithonella (C)
pauca, Chiastoplacolithus pauciramosus, Truncatoscaphus paucisectus, Polypodorhabdus pemmatoidea, Apertapetra perch-nielseniae, Nodosella perstrata, Caterella pinnatus, Cruciplacolithus pinnatus, Sollasites plethotretus, Octopodorhabdus * polytretus, Octopodorhabdus * ponticula, Prediscosphaera praemurus, Micula primus, Cretarhabdus pseudanthophorus, Zeugrhabdotus punctosa, Pontosphaera pygmaea, Transversopontis quadrata, Micula quadratus, Microstaurus quastitubifera, Scyphosphaera rectus, Staurolithites reticulatus, Zygodiscus salebrosum, Biscutum salebosus, Cruciplacolithus senarius, Truncatoscaphus septentrionalis, Epolithus septentrionalis, Podorhabdus sexiramatus, Stradnerlithus silvaradion, Nodosella spineus, Rhomboaster stenostaurion, Gartnerago sriatus, Chiastozygus stubbingsii, Parhabdolithus swastica, Micula swinnertonii, Rhabdolithina tenuiculum, Prinsius tenuis, Chiastozygus tokerae, Discoaster veteranum, Biscutum woodburyensis, Pithonella (C)

New genus names.

Alasphaera Hemipodorhabdus Perissocyclus
Bukrylithus Liliasterites Retecapsa
Calcivascularis Microstaurus Speetonia
Caterella Obliquipithonella (C) Stradnerlithus
Cretarhabdella Orthogonoides Tetrapodorhabdus
Grantarhabdus Orthopithonella (C) Triorbis

New super-generic names.

Biscutacea, Crepidolithaceae, Sollasitaceae, Speetoniaceae

(C) = Calcsphere.
* = Invalid.
New Code Word

A new code word has been added to the list for cross-referencing:
TECH.num. = Techniques; especially those applied to numerical and computer methods in manipulating biostratigraphic, taxonomic, biometric, distributional, etc. data.

A Request

In order to keep the INA Newsletter informative, current, and correct, we need your contributions. Please send reprints or corrections to the following address:

John C. Steinmetz
Denver Research Center
Marathon Oil Company
P.O. Box 269
Littleton, Colorado 80160 USA

Our intent here is to reference to all literature dealing with calcareous nannoplankton, including works on their stratigraphy, systematics, distribution, ecology, sedimentation, and diagenesis. Occasionally a paper is inadvertently overlooked. This is why reference is made to such papers as BLACK 1971 (A203-7) in the current issue of the Newsletter. If you encounter any "older" omissions, or are aware of any corrections which require attention, please send me a post card and I will see that they are included in the next Newsletter.

I would like to acknowledge the contributions of all authors who sent me reprints for the current issue. I also thank O. Leshner, K. Perch-Nielsen, and P. Roth who contributed comments about literature and taxa in the current issue.
Discoaster multiradiatus in the Paleocene of S.E. England

Andrew Godfrey, Paleoservices Ltd., Watford and Alan Lord, University College London.

The Thanet Formation and Reading/Woolwich Formation of Kent, S.E. England have been biostratigraphically dated as Upper Paleocene in age by a variety of microfossil groups. The Thanet stage was defined on these units and has its type area in the Isle of Thanet, eastern Kent. For full discussion of the sediments, the localities mentioned below, age determination and previous nannofossil studies see Curry et al. (1978, pp. 20-21, Table 1) and Hamilton (in Lord 1982, pp. 137-143, Fig. 6.1, Table 6.1).

Prior to the work of Hamilton the base of the Discoaster multiradiatus Zone (NP9) has been placed approximately at the junction of the Thanet and Reading/Woolwich Formations in the Kent sequence (Curry et al., 1978, Table 1). Hamilton (op. cit.) in a re-investigation of the Paleocene of eastern Kent discovered a single D. multiradiatus in the top of the Thanet Formation at Reculver and consequently lowered the NP8/NP9 boundary. A more detailed investigation of the same Reculver - Herne Bay section by Aubry (1983, pp. 48-49) failed to find D. Multiradiatus and as a consequence she assigned the entire Thanet Formation to NP8, although noting that younger levels of the Thanet Formation might nonetheless belong to Zone NP9. The importance of the precise location of this boundary stems from the wide use of the stage name 'Thanetian' outside the type area.

We have carefully re-examined the first occurrence level of D. multiradiatus (= base NP9) in the Paleocene of Kent. First, we looked again at the remainder of Hamilton's original sediment sample (her actual slide being no longer available) and failed to find further specimens of D. multiradiatus. Second, we re-examined the entire sequence of Thanet and Reading/Woolwich Formations at Pegwell Bay and Reculver - Herne Bay, with very accurately located samples collected as far as possible from fresh sediments in foreshore exposures. A single D. multiradiatus was found in the Thanet Formation at the top of the Pegwell Bay section, i.e. stratigraphically even lower than the previous record from the top of the formation of Reculver.

All normal field and laboratory procedures to avoid contamination were taken and we therefor believe that our record is genuine, however, how much significance should be attached to a single specimen is a matter of opinion. The nannofloral assemblages of the type Thanetian clearly stand in need of detailed re-examination.

Details: Discoaster multiradiatus from Sample 14, Reculver Silts, Pegwell Bay, Kent; section behind hoverport. Photographs UCL - 1999-1 to UCL - 1999-10. (copies available on request)

Acknowledgements: to the Natural Environment Research Council for financial support and to Prof. D. Curry and Mr. D. Ward for field guidance.

References:


NEW MEMBERS

C. Howard Ellis
Sohio Petr. Co.
50 Fremont Street
San Francisco
CA 94105
U.S.A.

Jijun Zhang
Dept. of Geology
Vanderbilt University
Nashville
TN 37235
U.S.A.

Michael S. Keppler
Gulf Oil Exploration & Production
P.O. Box 36506
Houston
Texas 77236
U.S.A.

C.P. Kok
Shell Expro London UEE/312
Little Adelphi, John Adam Street
London WC2
U.K.

Kugler Publications B.V.
Postbus 516
1180 AM Amstelveen
The Netherlands

Alison Merker
c/o Robertson Res. Int. Ltd.
'TY' N-Y-COED, Llanrhos
Llandudno, Gwynedd LL30 1SA
U.K.

Elisabeth Patillo
c/o J. Patillo
Broken Hill
Proprietary Company
35 Collinsstreet
Melbourne (Vict.)
Australia

CHANGES OF ADDRESSES

Wen-Rong Chi
Dept. of Geology and
Geophysical Sciences
Princeton University
Princeton
New Jersey 08544
U.S.A.

EXPULSIONS

John Hattner
555 Marie Antoinette C-26
Lafayette
Louisiana 70506
U.S.A.