```
==============================
=  DEEP SEA DRILLING PROJECT  =
=     PALEONTOLOGY DATA BASE   =
==============================
```

I. INTRODUCTION

A. BACKGROUND AND METHODS

The Deep Sea Drilling Project (DSDP) paleontologic data base
is prepared from data published in the DSDP Initial Reports.
The data base contains all of the **Cenozoic paleo data from
each Initial Report. Reworked material is not included as
part of the data set.

All records within the data base have the same basic format.
If multiple physical records are needed to complete a
logical record (a complete slide description) then columns
1-91 are repeated on successive physical records. The last
two columns store the physical record number pertaining to
each logical record. Every record is 234 characters in
length.

The data is organized first by fossil group then by the
cruise leg number. Since there may be more than one
investigator contributing studies for the same fossil group
and leg, each investigator's name appears on the record
along with an Initial Report volume number and page
reference.

** For data on sediments older than the Cenozoic, contact:

    Please see current system notes.

B. LEGS IN DATA SET

The database currently contains data for legs 1-96.

C. DATA REQUESTS

These data are archived at the National Geophysical Data Center
 in Boulder, Colorado.

II. FORMAT AND FIELD DESCRIPTIONS

A. DATA FORMAT

Record length = 234 characters

COLUMN	FIELD	FORMAT
1-2	LEG	A2
3-5	SITE	A3
6	HOLE	A1
7-9	CORE	A3
10-11	SECTION	A2
12-15	TOP INTERVAL DEPTH (cm)	F4.1
16-19	BOTTOM INTERVAL DEPTH (cm)	F4.1
20-27	COREDEPTH (meters)	F8.2
28-35	SAMPLE DEPTH (meters)	F8.2
36-37	TOTAL NUMBER OF OBSERVED FOSSILS (0-99)	I2
38-67	INVESTIGATORS NAME(S)	A30
68-72	PUBLICATION DATE (month/year)	A5
73-74	DSDP INTITIAL REPORT VOLUME NUMBER	I2
75	FOSSIL GROUP CODE (A-Z)	A1
76	GROUP ABUNDANCE	A1
77	CHEMICAL OVERGROWTH (scaled 0-3)	A1
78	CHEMICAL DISSOLUTION (scaled 0-3)	A1
79	MECHANICAL PRESERVATION (G,M,P)	A1
80-87	AGE CODE	A8
88-91	PAGE NUMBER REFERENCE	A4
92-231	FOSSIL CODE/ADUNDANCE/PRESERVATION GROUPS*	10A14

```
          ** Up to 10 groups allowed per record
             FOSSIL CODE (characters 1-9)
             FOSSIL ABUNDANCE (characters 10-11)
             SLASH "/" (character 12) (optional)
             FOSSIL PRESERVATION (char.13-14) (optional)**
```

232	RECORD JOIN CODE	A1
233-234	PHYSICAL RECORD NUMBER (1,2,...)	I2

**NGDC NOTE: No preservation data were found in this field.
Also note that the genus/species is usually as found in the
Initial Reports-Genera/species which have been renamed may be found
Under more than one name/code - please see fossil codes dictionary

B. FIELD DESCRIPTIONS

The definition of leg, site, hole, core and section may be
found in the explanatory notes. In addition, the special
core designations, as well as the methods of sample labeling
and calculating absolute sample depths are discussed.

INTERVAL DEPTH:

    The depth in centimeters from the top of the core section.
    Values are written with an implicit decimal point
    ("1234" = 123.4 cm.). The tenths digit is typically zero.

CORE DEPTH:

    The subbottom depth in meters to the top of the core.

SAMPLE DEPTH:

    The subbottom depth in meters to the middle of the sample.

CHEMICAL OVERGROWTH:

    A measure of the chemical deposition of material on the
    surface of the fossil(s). It is an integer scale from 0
    to 6, where 0 represents no overgrowth, and 6 is maximum
    overgrowth.

CHEMICAL DISSOLUTION:

    A measure of the amount of fossil dissolution which has
    taken place. It is an integer scale from from 0 to 6
    where 0 represents no dissolution and 6 maximum
    dissolution.

MECHANICAL PRESERVATION:

    A measure of the physical condition of the fossil(s) in
    the sample.

        G=GOOD   M=MODERATE   P=POOR

GROUP ABUNDANCE:

    Gives the relative abundance of the fossil group using the
    following scale.

        P=PRESENT   T=TRACE   R=RARE   F=FEW
        C=COMMON   A=ABUNDANT   D=DOMINANT

GROUP CODE:

     There were twenty-six (A-Z) fossil group codes. Only
     twenty-one groups have data files.

              GROUP CODE   GROUP NAME
              ==========   ======================
                  A   APTYCHI
                  B   BENTHIC FORAMINIFERA
                  C   DINOFLAGELLATES
                  D   DIATOMS
                  E   CRINOIDS
                  F   PLANKTONIC FORAMINIFERA
                  G   ALGAE
                  H   * PTEROPODS
                  I   * MISCELLANEOUS FOSSILS
                  J   ARCHAEOMONADS
                  K   CALCISPHERULIDES
                  L   * CALPIONELLIDS
                  M   * MOLLUSCS
                  N   NANNOFOSSILS
                  O   OSTRACODES
                  P   POLLEN AND SPORES
                  Q   EBRIDIANS & ACTINICIDIANS
                  R   RADIOLARIA
                  S   SILICOFLAGELLATES
                  T   TRACE FOSSILS
                  U   * COPROLITHS
                  V   RHYNCOLLITES
                  W   AMMONITES
                  X   PHYTOLITHARIA
                  Y   FISH DEBRIS
                  Z   BRYOZOANS

          * Not represented in the DSDP data base.

AGE CODE:

     The age code is an eight digit integer which represents the
     age that has been assigned to the interval from which the
     sample was taken. An age code dictionary is available as a
     separate file which normally accompanies the paleo data base
     (see page 7).

PAGE NUMBER REFERENCE

     Indicates the page number or appendix (APP) within the
     Initial Report from which the information was taken. It may

also indicate that the information came from a supplemental
(SUPP) publication.

FOSSIL CODE/ABUNDANCE/PRESERVATION GROUP

   A fourteen character repeating data field which identifies
   each fossil and indicates relative abundance and state of
   preservation. The structure of this group code is outlined
   below.


```
        CHARACTER       REPRESENTS
        =========       =============================
           1            FOSSIL CODE: GROUP CODE (A-Z)
          2-5                        GENUS CODE
          6-9                        SPECIES NUMBER
         10-11          FOSSIL ABUNDANCE
         12             slash "/" (optional)
         13-14          FOSSIL PRESERVATION (optional)
```


   FOSSIL CODE (characters 1-9): The fossil code contains a
   group code (A-Z), a 4 letter genus code and a 4 digit
   species number. There is a fossil code dictionary,
   available as a separate data file, which lists the codes and
   the corresponding fossil names. Within the dictionary, any
   fossil whose name is followed by a parenthetically enclosed
   Q "(Q)" has a questionable identity. This allows for a
   fossil whose identity was not certain to be associated with
   a distinct code.

   FOSSIL ABUNDANCE (characters 10-11): Equivalent to the
   group abundance field described earlier except that
   numerical percentages (0-99%) may also occur.

   FOSSIL PRESERVATION (characters 13-14): If a letter is
   encoded (G,M,P) it represents the level of mechanical
   preservation mentioned earlier. If an integer is encoded
   the information is related either to chemical dissolution
   (-6 to 0) or chemical overgrowth (0 to +6) as described
   earlier.

RECORD JOIN CODE:

   Indicates the treatment of duplicate source records. In
   most cases data from duplicate records represents data from
   the same slide examination which was displayed in different
   parts of the Initial Report. These records are joined with
   all data assigned to the page number representing the major

source. An encoded "P" indicates that the logical record
contains two or more observations of the same slide, eg. a
range chart entry and a plate reference. An "I" code
indicates the data manager felt the observations should
remain independent.

AGE CODE DICTIONARY FILE
=======================

   The age codes are integer values which represent specific
geological ages. The construct of the code in eight digits
allows immediate recognition of age level (i.e. era, period,
epoch, etc.). As an auxiliary file the age code dictionary
is necessary for interpreting the ages assigned to each
record within the paleo data base. The file contains all of
the numeric age codes, age names and age mnemonics used by
the Deep Sea Drilling Project.

AGE CODE FORMAT

COLUMN	FIELD	FORMAT
======	==========================	======
1-6	AGE MNEMONIC	A6
7-14	AGE CODE	I8
15	space	X1
16	AGE LEVEL (1-7)	I1
17	space	X1
18-37	AGE NAME (full name)	A20
38-43	UPPER AGE MNEMONIC	A6
44-50	UPPER AGE CODE	I7
51	space	X1
52-57	LOWER AGE MNEMONIC	I6
58-64	LOWER AGE CODE	I7
65	space	X1
66-70	UPPER AGE (million years)	F5.0
73-77	LOWER AGE (million years)	F5.0
78-80	space	X3

   AGE CODE:

   An eight digit hierarchical code which represents a
   specific age. The code is designed to provide age level
   information as outlined below.

        CODE DIGIT   AGE LEVEL
        ==========   =============

```
          1            (1) ERA
          2-3          (2) PERIOD
          4            (3) SUBPERIOD
          5            (4) EPOCH
          6            (5) SUBEPOCH
          7            (6) STAGE
          8            (7) SUBSTAGE
```

AGE MNEMONIC:

    An abbreviation of the age name.

AGE (million years):

    The upper and lower absolute age assigned by the DSDP to
    each geological age. Absolute ages were assigned for
    internal DSDP use only and are subject to revision.

NGDC NOTES:

    Age codes throughout the paleontology data files have the
    following problems which were fixed at NGDC:

        1) Agecodes consisting of a single zero were expanded to
           eight zeros.
        2) Seven-digit agecodes were changed to eight by adding
           a zero.
        3) Non-matching codes were hand-edited after checking
           the Initial Reports volumes (see list of Legs/Holes/
           Cores/Sections for each data file below).

FOSSIL CODE DICTIONARY FILE
===========================

The fossil code dictionary is an auxillary file which
contains all of the fossil codes and their corresponding
names. This dictionary is required to interpret the fossil
codes used within the DSDP paleo data base. In order to
accomodate instances where fossil identification is in
question, there will be two codes for the same fossil. One
code is used when a postive identification was made and the
other whenever the identification was questionable. If the
identification was questionable the fossil name is followed
by a parenthetically enclosed Q "(Q)".

DICTIONARY FORMAT

COLUMN	FIELD	FORMAT
1-9	DICTIONARY FOSSIL CODE	A9
10	space	X1
11-80	DICTIONARY FOSSIL NAME	A70

DICTIONARY FOSSIL CODE:

The dictionary fossil code coincides with the nine character
fossil code described earlier in this document
(see FOSSIL CODE/ABUNDANCE/PRESERVATION).

CHARACTER	REPRESENTS
1	GROUP CODE
2-5	GENUS CODE
6-9	SPECIES NUMBER

DICTIONARY FOSSIL NAME:

     The complete fossil name. A fossil name followed by a
     parenthetically enclosed Q "(Q)" denotes instances when
     identification was questionable. Spelling of the names were
     recorded as they appeared in the Initial Reports. When
     conflicts in spelling did occur DSDP attempted to resolve them
     by consulting with a paleontologist in the appropriate
     field. In cases where conflicts were not resolved, both
     names are included and both should be searched for if the
     user believes they are the same species. Occasionally, two
     numbers may appear for the same fossil. the user should be
     aware that both codes should be searched for to insure
     finding all occurrences of that particular species.

NGDC NOTE: There are still some spelling errors and inconsistencies.

                                        DSDP/Paleo 8/86

NGDC NOTES: Considering the enormous amount of data, these files
were remarkably clean. However, in files of such size, even a very
small percentage of errors can be significant to the user, so we have
attempted to resolve as many problems as possible before including
the data on this CD-ROM.

AGECODES: Problems with agecodes are summarized on page 7 of this
documentation file. A computer algorithm was applied to the data base
to add trailing zeros in the eighth positon or zero-fill the code if it
was blank except for one zero. These two steps were taken after careful
inspection of the data so that users could use the agecodes files more
effectively in conjunction with the paleontology files. After these
corrections were made, the files were again checked for codes not
represented in the agecodes file. There were very few mismatches at this
point, and they were hand-edited after consulting the Initial Reports. A
list of these hand-edits is given by fossil group below in case the user
would like to confirm the changes. The following fossil groups had no
incorrect agecodes: Ammonites, Crinoids, Phytolitharia, and Rhyncollites.

FOSSIL CODES: In some of the fossil groups, species codes were found in
the data file which were not represented in the fossil codes dictionary
for that group. All code mis-matches were resolved by first consulting
the Initial Reports, then taking suggested corrections to experts in the
field for final judgement. (The ODP staff assisted with the diatoms,
pollen, and ostracods.) NGDC thanks the several micropaleontologists
who graciously assisted us, including (alphabetically) Dr. David Bukry,
Dr. Stefen Gartner, Dr. William Hay, Dr. Alfred Loeblich, Dr. Ted Moore,
Dr. William Riedel, and Dr. John Saunders. Please note, however, that if
the resolutions are incorrect, it is the responsiblity of the NGDC for
insufficently researching the problem. Many of the researchers
who kindly assisted us may not have had access to all of the neccessary
documentation to retrace the inconsistencies and were working only from
information supplied by NGDC (or in the case of diatoms, ostracods, and
pollen by ODP). Also, users should be aware that codes which are incorrect

in the data files but do match the fossil codes dictionary are not flagged
but may occur occasionally due to coding or entry errors.

SEQUENCING ERRORS: Cores found out of order in the data base were moved
to their proper position. Out-of-order sections may still occur within
a core.

INTERVAL DEPTHS: In some cases, depths to top/bottom of interval may be
blank, or depth to bottom of interval may be blank or zero, giving an
apparent bottom depth less than top depth.

CHANGES MADE BY GROUP:

BENTHIC FORAMS

Age codes:

Age (IR)	Old Code	New Code	Leg/Hole/Core/Section
L. Oligocene	10331050	10331500	60/459B/56/ 3, 4,CC
			60/459B/57/ 1, 2, 3
			60/459B/58/ 1, 2, 3
			60/459B/59/ 1, 2

Fossil Codes:

Species in IR	Code in Data	Changes Made by NGDC
Aragonia sp.	BARAO0030	to BARAG0055 (Aragonia sp. in dictionary)
Bulimina pupoides	BBULI0341	to BBULI0340 (B. pupoides in dictionary)
Cassidulinoides	BCASI0025	to BCASD0025 (C. braziliensis in dictionary)
braziliensis	BCASI0027	
Cibicidoides	BCIBC0051	to BCIBC0050 (C. haitensis in dictionary)
haitiensis		(spelling change in dicitonary to haitiensis)
Fissuriva	BFISS0035	to BFISS0036 (F. laevigata in dictionary)
laevigata		
Globocassidulina	BGLOQ0010	to BGLOO0010 (G. subglobosa in dictionary)
subglobosa		
Heterolepa	BHETE0050	to BHETE0005 (H. grimsdalei in dictionary)
grimsdalei		
Heterolepa	BHETE0009	to BHETE0017 (H. kullenbergi in dictionary)
kullenbergi		
Loxostomoides	BLOXO0005	to BLOXO0015 (L. applinae in dictionary)
applinae		

```
Nonion laeve            BNONI0558  to BNONI0058 (N. laeve in dictionary)
Osangularia             BOSAN0086  to BOSAN0093 (O. rugosa in dictionary)
  rugosa
```

Fossil Codes Dictionary Modifications: Only obvious, gross spelling errors
in a genus which occurred once in a long string of species of that genus
were corrected. Inspection was visual and no guarantees are given of
thoroughness. Code BCIBI0307 "CIB" was changed to Cibicides westi after
inspection of data and Initial Reports.

DIATOMS

Age codes:

```
  Age (IR)        Old Code  New Code  Leg/Hole/Core/Section
  --------------  --------  --------  ---------------------
  U. Paleocene    10535100  10335100  36/327A/ 6/ 4
  M. Miocene      30313300  10313300  85/574 /25/CC
```

Fossil Codes:
```
                          Code in
Species in IR              Data     Changes Made (as suggested by ODP)
------------------        ---------  ---------------------------------------------
Arachnoidiscus sp.        DARAH0030  to DARAC0040, genus spelling change to
                                         Arachnodiscus
Raphidodiscus             DRAPH0010  to DRHAH0010, genus spelling change to
  marylandicus                           Raphidodicus
Roperia tesselata         DROBE0020  dictionary entry of DROPE0020 changed
                                         to DROBE0020
Stephanodiscus-           DSTCY0010  added to the dictionary as a new code
  Cyclotella
Stephanopyxis sp.         DSTEA0011  to DSTEA0010, apparent entry error
Stephanopyxis             DSTEA0245  to DSTEA0240 (S. schenckii in dictionary)
  schenckii
Stephanopyxis             DSTEA0245  to DSTEA0246 (S. schenckii (Q) in dictionary)
  cf. schenckii
Triceratium               DTRIQ0101  to DTRIC0181 (T. cruciformis (Q) in
  cruciformis(Q)                         dictionary)
Nitzschia                 DNITZ0675  to DNITZ0655 (N. trybionella in dictionary)
  trybionella
```


NANNOFOSSILS

In addition to other problems noted, some planktonic foram data for
Leg 23 was found in the nannofossil data file. It duplicated
data in the planktonic foram data base and was deleted.

Age codes:

```
  Age (IR)        Old Code  New Code  Leg/Hole/Core/Section
  --------------  --------  --------  ---------------------
  L. Miocene      10373500  10313500   8/ 70 /12/ 2
  L. Pliocene     10111500  10311500  14/141 / 6/ 1
  Paleocene       10355000  10335000  15/151 /11/ 6
  M. Miocene      03133000  10313300  36/329 /26/ 3
  Pleistocene     10103000  10133000  74/526 / 1/ 1,CC
                                      74/526 / 2/ 1,CC
                                      74/526B/ 1/ 1,CC
```

```
                                  74/526B/ 2/CC
L. Pleistocene  10135000  10133500  84/568 /11/CC
                                  84/568 /12/ 2,CC


Fossil Codes:
                        Code in
Species in IR            Data    Changes Made By NGDC
------------------     --------- -------------------------------------------
Discoaster cf.         NDISC0241 to NDISC0239 (D. lidzi (Q) in dictionary)
  lidzi & lidzii                  dictionary spelling changed to lidzii
Cyclagelosphaera       NCYCG0010 to NCYCL0030 (C. Margerelii in dictionary)
  margereli
Cyclagelospahera       NCYCG0020 to NCYCL0040 (Cyclagelosphaera reinhardtii
  reinhardtii                       in dictionary)
Cyclagelosphaera       NCYCG0020 same as above
  reinhardtii
Neochiastozygus        NNEOC0038 to NNEOC0036 (N. imbriei (Q) in dictionary)
  cf. N. imbriei
Calcidiscus            NCALD0005 to NCALD0010 (C. leptoporus in dictionary)
  leptoporus                      the dictionary entry for NCALD0005 read
                                  simply "C"


Fossil Codes Dictionary Modifications (with input from Dr. David Bukry):
 1) NASTR0024 (Astronion echolsi) was removed as a nannofossil code as a
            suspected benthic foram.
 2) The spelling of genus Bramlettius and genus Brammlettius were changed to
            Bramletteius
 3) NCALD0005 "C" was removed, as was NCALD0006 Calcidiscus gammation.  Both
            represented duplicates of NCALD0004.  All occurrences of
            NCALD0005 & 6 in the data file were changed to NCALD0004.
 4) The spelling of species Catinaster coalithus was changed to Catinaster
            coalitus
 5) NCERO0065 Ceratolithus helesmus was removed from the dictionary, and all
            occurrences of NCERO0065 changed to NCERO0090 Ceratolithus
            telesmus
 6) The spelling of species Chiasmolithus subrotondus was changed to
            Chiasmolithus subrotundus
 7) NCIBI0309 Cibicides whitei was removed as a suspected foram
 8) NCOCO0054 Coccolithus copelogicus was removed from the dictionary, and all
            occurrences of NCOCO0054 in the data base were changed to
            NCOCO0100 coccolithus eopelagicus.
 9) The spelling of species Cretarhabdus stiatus was changed to Cretarhabdus
            striatus.
10) The spelling of species Cribrosphaera ehrenbergi was changed to
            ehrenbergii
11) The spelling of species Cruciplacolithus mustatus was changed to mutatus
12) All occurrences of s.l. were changed to s. ampl.
13) Discoaster druggi was changed to druggii
14) Discoaster intercalcarus (Q) was changed to intercalaris (Q)
15) Discoaster phyllodes (Q) was changed to phyllodus (Q)
16) Discoaster tani nodifer (Q) was changed to tanii nodifer (Q)
17) Micrascidites was noted as a tunicate by adding (tunicate) but left as a
            code because tunicates are not noted in other files
18) Nannoconus elongatus cylindicus was changed to elongatus cylindricus
19) Reticulofenestra placamorpha (small center) was changed to placomorpha
            (small center)
20) Reticulofenestra temistriata (Q) was changed to tenustriata (Q)
21) Reticulofenestra umbilicata was changed to umbilica
22) Rhabdosphaera purlonga (Q) was changed to perlonga (Q)
23) NSPHN0161 Sphenolithus liperoensis was removed from the dictionary and
            all occurrences of NSPHN0161 in the data file were changed to
            NSPHN0050 Sphenolithus ciperoensis
24) NTRIQ0012 Triquetrorhabdulus sp. cf. T. carinatus was removed and all
```

occurrences of NTRIQ0012 were changed to NTRIQ0011 T. carinatus
                         (Q) to conform to treatment of other species
25) The spelling of species Zygodiscus meudini was changed to meudinii

OSTRACODS

Fossil Codes:
                         Code in
Species in IR   Data   Changes Made (as suggested by ODP)
-------------------   --------- --
Argilloecia sp.   OARGI0010 changed dictionary code from OAGRI0010 to
                                    OARGI0010 to match data and other species
                                    of Argilloecia. Replaced all OAGRI0010 in
                                    the data base with OARGI0010
Cytheropteron sp.   OCYTP0010 added to dictionary
Bosquetina   OROSQ0010 to OBOSQ0010 (B. fenstratum in dictionary)
  fenestratum

Fossil Codes Dictionary Modifications:
(made at NGDC – no ODP input)
1) Code OACAN0010 was listed as "ACA". This was modified in the dictionary
to Acanthocythereis sp. (Q) after consulting the Initial Reports for the
sample in which that code occurred (Vol. 87, page 605).

PLANKTONIC FORAMS

In addition to other problems noted, Leg 23 of the data were out of
order with respect to the other legs, they were placed in proper order.

Age codes:

  Age (IR)   Old Code New Code Leg/Hole/Core/Section
--------------   -------- -------- ---------------------
U. Pliocene   00311100 10311100 14/141 / 2/ 5
Oligocene   10531000 10331000 33/317B/25/ 4

Fossil Codes:
                         Code in
Species in IR   Data   Changes Made By NGDC
-------------------   --------- --
Globorotalia   FGLOA0385 to FGLOA0386, (G. peripheroronda in
  peripheronda   dictionary)
Globorotalia   FGLOA0506 to FGLOA0507, (G. sphericonomiozea in
  shericomiozea   dictionary)
Globigerinoides   FGLOD0082 to FGLOD0080, (G. bulloides in dictionary)
  bulloideus
Globigerinoides   FGLOD0491 added FGLOD0491 to dictionary as G.
  sacculifer cf.   sacculifer fistulosus (Q)
  fistulosus
Globigerina   FGLOG0078 to FGLOG0575 (G. pachyderma in dictionary)
  pachyderma   Note: left coiling had already been
  (right coiling)   changed to FGLOG0575 at DSDP. For some
                                    intervals, two entries will appear with
                                    this code, so abundances must be totalled.
Globigerina   FGLOG4313 to FGLOG0416 (G. linaperta (Q))
  linaperta (Q)
Globigerina sp.   FGLOG0586 to FGLOG0005 (Globigerina sp. in dictionary)
Globigerina sp.   FGLOG0732 to FGLOG0005 (Globigerina sp. in dictionary)
Globigerinita   FGLOT0101 added FGLOT0101 to dictionary as G.

```
   glutinata s.l.             glutinata s.l.
Pseudogloboquadrina   FPSEG0050  to FPSEU0010 (P. primitiva in dictionary)
   primitiva
Woodringina sp.       FWODR0010  added FWODR0010 to dictionary as Woodringina
                                 sp. (FWODR matched other species) changed
                                 FWODR0010 to FWODR0010 in data




POLLEN & SPORES

Fossil Codes:
                        Code in
Species in IR            Data    Changes Made (* = as suggested by ODP)
-------------------    ---------  ------------------------------------------------
Labiatae               PLABI0010 *to PLABA0010 (Labiatae in dictionary)
Ericaceae              PFRIA0010  to PERIA0010 (Ericaceae in dictionary)
Polyadopollenites      PPOLD0010  to PPOLA0010 (Polyadopollenites sp. in
   sp.                              dictionary)




RADIOLARIA

Age codes:

  Age (IR)       Old Code   New Code   Leg/Hole/Core/Section
--------------   --------   --------   --------------------
M. Miocene       10315300   10313300   31/296 /28/ 2

Fossil Codes:
                        Code in
Species in IR            Data    Changes Made By NGDC
-------------------    ---------  ------------------------------------------------
Anthocyrtoma sp.       RANTC0010  to RANTT0010 (Anthocyrtoma sp. in dictionary)
Carpocaniidae          RCARI0010  added RCARI0010 to dictionary
Collosphaeridae        RCOLL0080  added RCOLL0080 to dictionary
Euchitonia furcata     REUCH0035  to REUCH0030 (E. furcata in dictionary)
Lithostrobus           RLITV0015  added RLITV0015 to dictionary
   hexagonalis
Lithostrobus sp.       RLITV0020  added RLITV0020 to dictionary
Ommatodiscus sp.       ROMMA0005  to ROMMO0005 (Ommatodiscus sp. in dictionary)
Orosphaeridae          ROROP0010  added ROROP0010 to dictionary




SILICOFLAGELLATES

Age codes:

  Age (IR)       Old Code   New Code   Leg/Hole/Core/Section
--------------   --------   --------   --------------------
Quaternary       10100010   10100000   16/157 / 7/ 5

Fossil Codes:

1) Several species of the genus Distephanus which were coded from vol 81,
page 552 Table 5 for Hole 554, Core 8, Section 3 and Hole 554A, Core 1,
Section 1 had been entered into the data with the 5-digit prefix for the
genus Dictyocha (SDICT) rather than SDIST which indicated Distephanus.
The prefixes were changed in the data for those two intervals only.

2) The spelling of two entries in the fossil codes dictionary for the
```

genus Dictyocha were modified from Dityocha to Dictyocha (SDICT0129, D. concovata & SDICT0495, D. perfecta).