

Tertiary Marker Fossils in Colombia

PALEOCENE (to Danian)

Rzehakina epigona var. lata Cushman & Jarvis
Spiroplectamina grzybowskii Frizzell
occur in the Montañas de Maria in Bolivar and Cordoba

PALEOCENE

Alabamina midwayensis var. soldadoensis (Cushman & Renz)
" " " trinitatensis(" " ")
Cibicides praecursorius (Schwager)
Guembelina trinitatensis Cushman & Renz
Robulus midwayensis (Plummer)
in the Guasare formation, Rancheria valley.

Alabamina midwayensis (Cushman)
Cibicides praecursorius (Schwager)
Discocyclina aguerreverei Caudri
" grimsdalei Vaughan & Cole
" fonslacertensis Vaughan
Globorotalia crassata var. aequa Cushman & Renz
" wilcoxensis var. acuta Toulmin
Rzehakina epigona var. lata Cushman & Jarvis
in limestones at San Cayetano, Bolívar.

LOWER EOCENE

no markers known from Colombia

MIDDLE EOCENE

Discocyclina anconensis Barker
Helicolepidina polygiralis Barker
Helicostegina dimorpha Barker and Grimsdale
Operculinoides ssp.
in reef limestones of Atlántico and Bolívar.

Asterigerina crassaformis Cushman & Siegfus, frequent
Ceratobulimina eximia (Rzehak)
Cibicides grimsdalei Nuttall, frequent
Globigerina danvillensis Howe & Wallace
" wilsoni var. bolivariana Petters
Hastigerinella eocenica Nuttall
" colombiana Petters
in shales in Atlántico and Bolívar

UPPER EOCENE

Venericardia charanalensis Olsson
Conus sauridens subsp. chiranensis Olsson
Mancorus grabau Olsson
Turritella olssoni Clark
in Zone "C" of Clark and Durham (Geol.Soc.America, Memoir 16,
p.2), Bolívar
Asterigerina crassaformis Cushman & Siegfus, rare
Bulimina jacksonensis Cushman
Cibicides cushmani Nuttall
" grimsdalei Nuttall, rare
" perlucidus Nuttall
Globigerina danvillensis Cushman
" dissimilis Cushman & Bermúdez
Hantkenina alabamensis Cushman
Hastigerinella eocenica Nuttall
Spiroplectamina nuttalli Lallicker
" trinitatensis Cushman & Renz
Uvigerina cookei Cushman
in shales of Atlántico and Bolívar
Helicolepidina nortoni Vaughan
" paucispira Barker & Grimsdale
Helicostegina soldadoensis Grimsdale
Lepidocyclina pustulosa tobleri (H.Douvillé)
" sanfernandensis Vaughan & Cole
Operculinoides ssp.
in reef limestones of Atlántico and Bolívar.

LOWER OLIGOCENE

Bulimina sculptilis Cushman
Cibicides perlucidus Nuttall
" mexicanus Nuttall
" cushmani Nuttall
Globigerina cipercoensis Bolli
" dissimilis Cushman & Bermúdez
Uvigerina mexicana Nuttall
" topilensis Cushman
in shales of Atlántico, Bolívar and Córdoba
in part of the Poso series of Anderson and "Shales" of Olsson
(American Paleontology, Bull. N° 68, vol.19, 1932)

MIDDLE OLIGOCENE

Cibicides mexicanus Nuttall
Globigerina dissimilis Cushman & Bermúdez
Globigerinatella insueta Cushman & Stainforth
Globigerinoides triloba (Reuss)
Globorotalia barissanensis Stainforth
Uvigerina gallowayi var. *basicordata* Cushman & Renz
" *mexicana* Nuttall
" *rustica* Cushman
Siphogenerina basispinata Cushman & Jarvis, rare
" *transversa* Cushman, rare
in part of same formations as mentioned under "Lower Oligocene"

Heterostegina texana Gravell & Hanna
" *antillea* Cushman
Lepidocyclina canellei Lem. & Douv.
" *parvula* Cushman
Miogypsina bramlettei Gravell
" *bracuensis* Vaughan
" *hawkinsi* Hodson
in coarse clastics and limestone, locally intercalated
in the "Shales" of Olsson (see under Low.Olig.) in
Magdalena and Cordoba.

UPPER OLIGOCENE

Globigerinoides triloba (Reuss)
Globorotalia barissanensis Stainforth
" *fohsi* Cushman & Ellisor
" *praemenardii* Cushman
Siphogenerina basispinata Cushman & Jarvis, frequent
" *transversa* Cushman, frequent
" " var. *horquetensis* Bermúdez
" *multicostata* Cushman & Jarvis
Uvigerina rustica Cushman
in part of the "Shales" of Olsson (see under Low. Olig.) in
Atlántico and Bolívar.

Heterostegina cf. *texana* Gravell & Hanna
Miogypsina cushmani Vaughan
Mioplepidocyclina mexicana (Nuttall)
Lepidocyclina canellei Lem. & Douv.
Operculimoides ssp.
in coarse clastics intercalated in the "Shales" of Olsson
(see under Low. Olig.) in Cordoba.

LOWER MIOCENE

Cancellaria colombiana Olsson
Conus tortuoso-striatus Toula
Crassatellites jamaicensis Dall
Drillia cercadonis Maury
Strombina guppyi Woodring
Strombus pugiloides Guppy
Antigone caribbeana Anderson
in Las Perdices shales of Anderson and in his Tubara group
stages M and N, (Proc. Calif. Acad. Science 4th ser. vol.
16, No.3).

Cibicides isidroensis Cushman & Renz
Globigerinoides triloba (Reuss)
Globorotalia menardii (d'Orbigny)
" praemenardii Cushman
Haplophragmoides cf. anomalinoides (Rhumbler) frequent
Marginulina basispinata Cushman & Renz
Uvigerina rustica Cushman
in same formations as listed for the megafossils above.

MIDDLE MIOCENE

Drillia gatunensis (Toula)
Fasciolaria olssoni Anderson
Phos gatunensis (Toula)
Strombina colombiana Wiesbord
Arca grandis Pilsbry
Chione atlantica Anderson
Ostrea mesor colombiensis Wiesbord
Scapharca chiriquiensis (Gabb)
in stages O to S of Anderson's Tubara group (see also Low. Mioc.)

Bifarina hancocki Cushman & Mc Culloch
" pacifica " " " "
Compressigerina coantata (Palmer)
Cymbaloporetta bradyi (Cushman
" squamosa (d'Orbigny)
Globigerinoides triloba (d'Orbigny)
Globorotalia menardii (d'Orbigny)
" praemenardii Cushman
Planulina ariminensis (d'Orbigny)
Rotalia andersoni Redmond
in stages O to S of Anderson's Tubara group (see also Low. Mioc.)

UPPER MIOCENE and PLIOCENE

We have no definite fossil evidence for these stages

PLEISTOCENE

Anomalina balthica (Grovonius)
Salgar formation between Baranquilla and Puerto Colombia

Continental Deposits

Age assignments in the continental Tertiaries are open to conjecture. Ages based on freshwater or brackishwater mollusks do not always agree with those based on vertebrates.

UPPER EOCENE

Arca samanensis (?) Olsson
Clementia peruviana Olsson
Crommium palmerae Clark
Hannatoma emendorfi Olsson
Harrisianella peruviana Olsson
Neverita bolivariensis Clark
Pitar colombiana Clark
Turritella samanensis Olsson
in Carbonera formation near Cucuta - age reliable

Hemisinus corrosensis Pilsbry & Olsson
Potamides mcgilli Pilsbry & Olsson
Sogamosa cyrenoides Pilsbry & Olsson
Los Corros horizon, De Mares concession

Albertogaudryinae (vertebrates)
in Mugrosa form. below the prob. Oligocene mollusk horizon
in the De Mares conc.

OLIGOCENE (LOWER to MIDDLE ?)

Hemisinus mugrosanus Pilsbry & Olsson
" *hopkinsi* Pilsbry & Olsson
in Mugrosa form. of De Mares conc.

Protheosodon (vertebrate)
in Tune formation at Chaparal. Stirton assigns an Early Olig. age to it, but the vertebrates are accompanied by a La Cira mollusk fauna which generally is considered Low. Miocene to Upper Oligocene in age.

OLIGOCENE (LATE)

Cochilus sp. (vertebrate)
Scleromys (aff.) "
in Honda group at Coyaima, after Stirton

LOWER MIOCENE (to UPPER OLIGOCENE ?)

Anodonta lacirana Pilsbry & Olsson

Corbula abundans " " "

" magdalensis " " "

Diplodon oponcitonis " " "

Hemisinus laciranus " " "

Mytilopsis cira " " "

Potamogyrus laciranus" " "

Tripodon latouri " " "

La Cira fossil horizon in Colorado form. in De Mares conc.

Corbula hettneri Anderson

" cebada "

" scheibei "

Melanella karsteni "

described by Anderson (Calif. Acad. Science, Proceedings, Vol. 17, No 1
1928) from San Juan de Rio Seco.

LATE MIOCENE

Olenopsis

(vertebrate)

Scleromys schuermanni Stehlin

"

at La Venta and Carmen de Apicalá

LATE PLEISTOCENE

Mylodon

(vertebrates)

Haplomastodon chimborazi (Proano)

"

in Mondeñado formation at Mosquera

Bogotá, August 26, 1954



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