

APPENDIX B

for the article

Isotope geochronology and vertebrate paleontology in México: Panorama and critical appraisal

by

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Table B1. Marfil local fauna, Bridgerian, Early Eocene of Guanajuato State, Central Plateau Morphotectonic Province.

CLASS MAMMALIA
ORDER CONDYLARTHRA
Family Hyopsodontidae
cf. <i>Hyopsodus</i> sp.
ORDER CARNIVORA
Family Viverravidae
cf. <i>Viverravus</i> sp.
ORDER RODENTIA
Family Sciuravidae [or Fam. <i>inc. sed.</i>]
<i>Floresomys guanajuatoensis</i> *
[Floresomys species complex]
Family <i>inc. sed. 1</i>
<i>Guanajuatomys hibbardi</i> *
Family <i>incertae sedis</i>
<i>Marfilomys aewoodi</i> *
ORDER PERISSODACTYLA
Family Helaletidae
cf. <i>Helaletes</i> sp.
ORDER <i>INCERTAE SEDIS</i> PALAEOANODONTA
Family Nova [at present is <i>incertae sedis</i>]
<i>Genus and species nova 1</i>
<i>Genus and species nova 2</i>

Source: Fries *et al.* (1955), Black and Stephens III (1973), Ferrusquía-Villafranca (1989, 2004, 2005).

Table B2. Yolomécatl local fauna, ?Duchiesnan-Chadronia, Late Eocene of Oaxaca State, Sierra Madre del Sur Morphotectonic Province.

CLASS MAMMALIA
ORDER CARNIVORA
Family indet.
<i>Genus and species implied</i>
ORDER CREODONTA
Family Hyenodontidae
<i>Genus and species indet.</i>
ORDER RODENTIA
Family Sciuridae
<i>Genus and species indet.</i>
Family indet.
<i>Genus and species implied</i>
ORDER PERISSODACTYLA
Family Tapiridae
<i>Genus and species indet.</i>
Family Rhinocerotidae
<i>Genus and species indet.</i>
Family Chalicotheriidae
<i>Genus and species indet.</i>
ORDER ARTIODACTYLA
Family Merycoidontidae
<i>Genus and species indet.</i>
Family Tayassuidae
<i>Genus and species indet.</i>
Family Leptochoridae
<i>Genus and species indet.</i>
Family Protoceratidae
<i>Genus and species indet.</i>
Family Camelidae
<i>Genus and species indet.</i>
Family Hypertragulidae
<i>Genus and species indet.</i>

Source: Jiménez-Hidalgo *et al.* (2011).

Table B3. Suchilquitongo local fauna, Late Arikarean-Early Hemingfordian, Miocene of Oaxaca State, Sierra Madre del Sur Morphotectonic Province.

CLASS MAMMALIA
ORDER CARNIVORA
Family Felidae
<i>Genus and species indet.</i>
ORDER RODENTIA
Family indet.
<i>Genus and species indet.</i>
ORDER PERISSODACTYLA
Family Equidae
<i>Merychippus</i> sp.
Family Rhinocerotidae
<i>Genus and species indet.</i>
ORDER ARTIODACTYLA
Family Merycoidodontidae,
<i>Merychius</i> aff. <i>M. minimus</i>
Family Protoceratidae,
cf. <i>Paratoceras</i> sp.
<i>Genus et species nova</i>
Family Camelidae
<i>Genus and species indet.</i>
Family Antilocapridae
<i>Merriamoceros</i> sp.
<i>Genus and species indet.</i>

Source: Ferrusquía-Villafranca (1990b, 2003), Ferrusquía-Villafranca *et al.* (2006).

Table B4. Matatlán local fauna, Early Barstovian, Miocene of Oaxaca State, Sierra Madre del Sur Morphotectonic Province.

CLASS MAMMALIA
ORDER CARNIVORA
Family Felidae
<i>Genus and species indet.</i>
Family Mustelidae
cf. <i>Leptarctus</i> sp.
ORDER RODENTIA
Family Indet. B [?Cricetidae]
<i>Genus and species indet.</i>
ORDER ARTIODACTYLA
Family Camelidae
cf. <i>Protolabis</i> sp.
? <i>Miolabis</i> sp.
Family Antilocapridae
<i>Genus indet. [?Cosoryx] and species indet.</i>
Family Protoceratidae
<i>Genus and species indet.</i>
Family Leptomerycidae
cf. <i>Pseudoparablastomeryx</i> sp.
Family indet. A
<i>Genus and species indet.</i>
Family indet. B
<i>Genus and species indet.</i>
ORDER PERISSODACTYLA
Family Equidae
<i>"Merychippus" cf. "M." primus</i>
<i>"Merychippus" cf. "M." sejunctus</i>
<i>Plihippus</i> sp.
ORDER PROBOSCIDEA
Family Gomphotheriidae
<i>Gomphotherium</i> sp.

Source: Ferrusquía-Villafranca (1990b, 2003), Bravo-Cuevas and Ferrusquía-Villafranca (2006, 2010).

Table B5. Ixtapa local fauna, Early Barstovian, Miocene of Chiapas State, Sierra Madre de Chiapas Morphotectonic Province.

CLASS MAMMALIA**ORDER PERISSODACTYLA [F, G, SP]**

Family Rhinocerotidae

Teleoceras sp.

Family Equidae

aff. *Cormohipparion species nova***ORDER PROBOSCIDEA**

Family Gomphotheriidae

Gomphotherium sp.

Source: Langenheim and Frost (1963), Ferrusquía-Villafranca (1978, 1990c, 2003), Bravo-Cuevas and Ferrusquía-Villafranca (2008).

Table B7. Paso del Aguila local fauna, Late Clarendonian-Early Hemphillian, Late Miocene of San Luis Potosí State, Sierra Madre Oriental Morphotectonic Province

CLASS MAMMALIA**ORDER PERISSODACTYLA**

Family EQUIDAE

Pliohippus potosinus nov. sp.**ORDER ARTIODACTYLA**

Family CAMELIDAE

Genus and species indet.

Family ?CERVIDAE

*Genus and species indet.*Source: Ferrusquía-Villafranca *et al.* (2014).

Table B6. Nejapa Fauna, Early Barstovian, Miocene of Oaxaca State, Sierra Madre del Sur Morphotectonic Province.

CLASS MAMMALIA**ORDER CARNIVORA**

Family Mustelidae

Plionictis oaxacaensis

Family Canidae

*Genus and species indet.***ORDER RODENTIA**

Family indet. A

*Genus and species indet.***ORDER ARTIODACTYLA**

Family Tayassuidae

cf. *Prostenops* sp.

Family Camelidae

cf. *Pliauchenia* sp.cf. *Procamelus* sp.cf. *Protolabis* sp.*Genus and species indet.* [??*Miolabis* sp.]

Family Antilocapridae

Merycodus sabulonis

Family ?Antilocapridae

Genus and species indet.

Family Leptomerycidae

? *Pseudoparabastomeryx* sp.

Family Dromomerycidae

cf. *Dromomeryx* sp.

Family indet A

Genus and species indet A

Family indet. B

*Genus and species indet. B***ORDER PERISSODACTYLA**

Family Rhinocerotidae

Genus and species indet.

Family Equidae

"Merychippus" cf. "M." *primus*"Merychippus" cf. "M." *sejunctus**Cormohipparion* aff. *C. quinni**Pliohippus* sp.**ORDER PROBOSCIDEA**

Family Gomphotheriidae

Gomphotherium sp.

Source: Ferrusquía-Villafranca (1990b, 2003), Bravo-Cuevas and Ferrusquía-Villafranca (2006, 2010).

Table B8. Juchipila Fauna, Hemphillian, Late Miocene of Zacatecas State, Central Plateau Morphotectonic Province and Jalisco State, Sierra Madre Occidental Province.

CLASS MAMMALIA**ORDER XENARTHRA**

Family Megalonychidae

*Pliometanastes***ORDER CARNIVORA**

Family Canidae

*Genus Borophagus**Specie Borophagus secundus***ORDER PROBOSCIDEA**

Family Gomphotheriidae

*Genus and species indet.***ORDER PERISSODACTYLA**

Family Equidae

*Genus Neohipparion**Specie Neohipparion eurystyle**Genus Dinohippus**Specie Dinohippus mexicanus*

Family Rhinocerotidae

*Genus Teleoceras**Specie Teleoceras fossiger***ORDER ARTIODACTYLA**

Family Camelidae

*Genus Hemiauchenia**Specie Hemiauchenia gracilis*

Family Tayassuidae

*Genus Catagonus**Catagonus brachydontus**

*Questionable record

Source: Carranza-Castañeda *et al.* (2013, table 12).

Table B9. El Trapiche-Rancho El Ocote-Tecolotlán combined mammalian assemblage, Hemphillian, Late to latest Miocene of Guanajuato State, Central Plateau Morphotectonic Province and Jalisco State, Trans-Mexican Volcanic Belt Morphotectonic Province.

CLASS MAMMALIA

ORDER XENARTHRA

Family Megalonychidae

Megalonyx

Megalonyx sp.

Family Mylodontidae

Paramylodon

ORDER CARNIVORA

Family Mustelidae

Genus *Conepatus*

Specie *Conepatus sanmiguelensis*

Family Canidae

Genus *Canis*

Specie *Canis ferox*

Genus *Borophagus*

Specie *Borophagus secundus*

Family Ursidae

Genus *Agriotherium*

Specie *Agriotherium schneideri*

?Genus *Pseudaelurus*

Specie *Pseudaelurus? intrepidus*

ORDER PROBOSCIDEA

Family Gomphoteriidae

Genus *Rhynchotherium*

ORDER PERISSODACTYLA

Family Equidae

Genus *Neohipparion*

Specie *Neohipparion eurystyle*

Genus *Nannippus*

Specie *Nannippus aztecus*

Genus *Astrohippus*

Specie *Astrohippus stocki*

Genus *Dinohippus*

Specie *Dinohippus mexicanus*

Family Rinocerotidae

Genus *Teleoceras*

Specie *Teleoceras Fossiger*

ORDER ARTIODACTYLA

Family Protoceratidae

Genus *Kryptoceras* sp.

Specie *Kryptoceras* sp.

Family Camelidae

Genus *Hemiauchenia*

Specie *Hemiauchenia gracilis*

Specie *Hemiauchenia indet.*

Specie *Hemiauchenia vera*

Genus *Alforjas*

Specie *Alforjas* sp.

Genus *Megatylopus*

Specie *Megatylopus matthewi*

Family Antilocapridae

Genus *Texoceros*

Specie *Texoceros* sp.

Genus *Hexobelomeryx*

Specie *Hexobelomeryx fricki*

Family Tayassuidae

Genus *Catagonus*

Specie *Catagonus brachydontus*

Table B10. San Miguel fauna, Blancan, Early-Middle Pliocene of Guanajuato, Central Plateau Morphotectonic Province.

CLASS MAMMALIA

ORDER INSECTIVORA

Family Sorichidae

Notiosorex repenningi

ORDER EDENTATA

Family Glyptodontidae

Glyptotherium sp.

Family Pampatheriidae

Plaina sp. [=Kraglievichia]

Family Mylodontidae

Glossotherium sp.

ORDER LAGOMORPHA

Family Leporidae

Sylvagus sp.

Hipolagus mexicanus

Paranotolagus complicatus

Pratilepus ?kansansensis

ORDER RODENTIA

Family Schiriuridae

Spermophilus matachicensis

Cynomys sp.

Paenemarmota barbouri

Family Muridae

Neotoma sp.

Family Hydrochoelidae

Neocherus cordobai

Neocherus sp.

ORDER CARNIVORA

Family Canidae

Borophagus diversidens

Family Ursidae

Tremarctos sp.

Family Mustelidae

cf. *Mustela*

cf. *Trigonictis*

Family Felidae

Felis cf. *F. studei*

Felis? *lacustris*

Macairodus cf. *M. coloradensis*

ORDER PROBOSCIDEA

Family Gomphoteriidae

Cuvieronius sp.

Rhynchotherium cf. *R. falconeri*

ORDER PERISSODACTYLA

Family Equidae

Nannipus peninsulatus

Equus simplicidens

Equus sp.

ORDER ARTIODACTYLA

Family Tayassuidae

Platygonus cf. *P. alemanii*

Platigonus sp.

Family Camelidae

Hemiauchenia blancoensis

Hemiauchenia sp.

cf. *Camelops*

Blancamelus meadei

Family Antilocapridae

Capromeryx tautonensis

Antilocaprid indet.

Source: Carranza-Castañeda (2006, table 1), Carranza-Castañeda *et al.* (2013, table 12).

Source: Carranza-Castañeda (2006, Table 1).

Table B11. Santa María Amajac-Charo mammalian assemblage, Blancan, Early-Middle Pliocene of Michoacán and Hidalgo States, Trans-Mexican Volcanic Belt Morphotectonic Province.

CLASS MAMMALIA

ORDER LAGOMORPHA

Family Leporidae

Sylvagus sp.

Hipolagus mexicanus

ORDER RODENTIA

Family Schiriuridae

Cynomys sp.

Paenemarmota barbouri

Family Muridae

Neotoma sp.

ORDER CARNIVORA

Family Ursidae

Tremarctos sp.

ORDER PROBOSCIDEA

Family Gomphoteriidae

Rhynchotherium cf. *R. falconeri*

Cuvieronius sp.

ORDER PERISSODACTYLA

Family Equidae

Nannipus peninsulatus

Equus simplicidens

Equus sp.

ORDER ARTIODACTYLA

Family Tayassuidae

Platygonus cf. *P. alemanii*

Platygonus sp.

Family Camelidae

Hemiauchenia sp.

*Hemiauchenia vera**

Family Antilocapridae

Antilocaprid indet.

*Questionable record.

Source: Carranza-Castañeda (2006, table 1).

Table B12. Buenaventura local fauna, Blancan, Late Pliocene of Jalisco State, Trans-Mexican Volcanic Belt, Morphotectonic Province.

CLASS MAMMALIA

ORDER PERISSODACTYLA

Family Equidae

Equus cf. *E. simplicidens*

ORDER ARTIODACTYLA

Family Tayassuidae

Platygonus sp.

Family Camelidae

Hemiauchenia blancoensis

Source: Carranza-Castañeda (2006, p. 55).