Checklist of Myanmar taxa updated from Gates' (1972) "Burmese Earthworms"
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Summary
The current review of megadrile earthworms from Myanmar lists approximately 30
genera and 195 specific taxa. Of these, ca. 130 species are known only from Myanmar
and 65 are also found either in adjacent countries or are cosmopolitans, but 3-6 taxa are
of uncertain status. Thus a total of about 195 species has a ratio of wholly-endemic to
non-endemic taxa of roughly 2 : 1. This ratio is similar to that previously published by
Stephenson (1923: 17, 29) who indexed 37 megadriiles from Burma (then including
Andamans and Nicobars) of which he thought about 20 were indigenous. In Gates
(1972), an additional 63 often cosmopolitan species are described that, although they do
not occur in Myanmar, are found in adjacent regions, to give a grand total of 258
megadriiles described in his "Burmese" book (plus he mentioned a dozen microdriles).
All are checklisted below. For some reason (political geography or subspecies?) these
figures differ from totals quoted by Gates: In the Preface to his major opus on
Burmese Earthworms that took 40 years "struggle" to collect and compile data, Gates
(1972: 3) mentioned that there were then a total of 23 genera and 174 specific taxa from
Myanmar. Moreover, to prepare his final draft, he said that his first draft about ten
years earlier had required changing the name of only one exotic and adding a few new
peregrine species reported from Andaman and Nicobar Islands with capital at Port Blair
(that however later reverted from Burmese jurisdiction to territories of India). And
despite that few full-time earthworm taxonomists remain working around the world, in
the last 30 years there have been more than a few name changes that impact on Gates'
comprehensive study. All names are updated and revised here while also allowing for
Gates' codification for the various forms of degraded parthenogenetic morphs.

Materials and Methods
Family classification follows Blakemore (2000, 2002, 2005) that revised
Acanthodrilidae and Megascolecidae so that New Zealand's *Rhododrilus*, Australian
and New Zealand *Diplotrema* (syn. *Eodrilus*), and North American *Diplocardia* remain
in the Acanthodrilidae. The genera *Pontodrilus* (circum-mundane), *Plutellus*
(Australia), *Argilophilus* (North America and perhaps India), *Megascolides* and
Diporochaeta (Australasia) are now returned to the classical Megascolecidae of Michaelsen (1900) and Stephenson (1930). And while Octochaetidae is retained, *Megascolides* *Scolioscolides*, and *Celeriella* are now transferred to Megascolecidae from Octochaetidae *sensu* Gates (1972). Genera and species are revised to comply with most recent classifications (e.g. Blakemore, 1999, 2000, 2001, 2003; Sims & Easton, 1972; Sims & Gerard, 1985, 1999).

Classical texts for earthworm systematics are Michaelsen (1900) and Stephenson (1930), while Stephenson (1923) described the species from "British India" that then included Myanmar.

A brief political history is that on 1st Jan 1886 the remnants of the Kingdom of Awa ("Upper Burma") were annexed to British rule and later, in February, "Upper" and "Lower" Burma were united within British India, Burma becoming a separate colony on 1 Apr 1937. After Japanese and Thai occupation during the war, the Union of Burma gained independence on 4 Jan 1948 and finally on 18 Jun 1989 the name reverted to the Union of Myanmar and its capital Rangoon was changed to Yangon, but the name Burma still persists.

Gates (1972) devoted much study and page space to the problem of parthenogenetic degradation, especially in pheretimoid worms, and Gates’ codes for the common forms of degraded morphs are:

- **A** – for parthenogenetic **athecal** morphs (i.e., lacking spermathecae);
- **R** – for parthenogenetic **anarsenosomphic** morphs (i.e., lacking male terminalia);
- **Z** – for parthenogenetic morphs **lacking testes** (also testis sacs and/or seminal vesicles);
- **AR** - athecal, anarsenosomphic, parthenogenetic morphs;
- **ARZ** – athecal, anarsenosomphic, parthenogenetic morphs without testes;
- **I** – for **intermediate** morphs with incomplete/asymmetrical deletion of the above organs;
- **Hp** – for hermaphroditic parthenogenetic morphs in which the reproductive organs are present but remain in a juvenile state in adult specimens;
- **H** – a **hermaphroditic** morph with biparental reproduction of a species also with parthenogenetic morphs. (Note: the H morph is not to be confused with the Holotype).
Systematics - Checklist
Full synonymies for cosmopolitan exotics are given in Blakemore (2002). The order presented here loosely follows the rather illogical order presented by Gates (1972), for ease of cross-reference, with the following codes:-
# = regional (e.g. from India's adjacent Assam State or Andaman Islands or Yunnan, China) or exotic taxa but NOT from Myanmar proper, yet reported by Gates (1972);
* = found but also known outside Myanmar (i.e., exotic/introduced or widespread but not necessarily "peregrine");
- = only known from Myanmar (i.e., native/endemic);
? = some uncertainty of name or status;
syn. = synonyms shown in braces with occasional notes.

Notes: Gates' (1959, 1972) concept of Acanthodrilidae differs from the current one and, for example, the genera *Platellus* and *Pontodrilus* are no longer included being returned to MEGASCOLECIDAE in Blakemore (2000). Neither of the following *Microscolex* species was actually confirmed from Myanmar, but Gates (1972: 34) said "One anthropochorous taxon already has been recorded from Indian and another can be expected to turn up sooner or later in southeast Asia".

#*Microscolex dubius* (Fletcher, 1887).
#*Microscolex phosphoreus* (Duges, 1837).

EUDRILIDAE Claus, 1880

#*Eudrilus eugeniae* Kinberg, 1867.

GLOSSOSCOLECIDAE Michaelsen, 1900

*Pontoscolex corethrurus* (Müller, 1857) [syns. numerous, see Blakemore (2002)].

LUMBRICIDAE Claus, 1876

#*Allolobophora chlorotica* (Savigny, 1826).
# Allolobophoridella eiseni (Levinsen, 1884).
# Aporrectodea caliginosa (Savigny, 1826).
# Aporrectodea longa (Ude, 1885).
# Aporrectodea rosea (Savigny, 1826).
# Aporrectodea trapezoides (Duges, 1828).
* Bimastos parvus (Eisen, 1874).
# Dendrobaena hortensis (Michaelsen, 1890).
# Dendrobaena octaedra (Savigny, 1826).
# Dendrobaena rubida (Savigny, 1826).
# Eisenia fetida (Savigny, 1826).
# Eisenia tetraedra (Savigny, 1826).
# Lumbricus castaneus (Savigny, 1826).
# Lumbricus rubellus (Hoffmeiseter, 1843).
# Lumbricus terrestris Linnaeus, 1758.
* Octolasion cyaneum (Savigny, 1826).
* Octolasion tyrtaeum (Savigny, 1826).

Notes: the following Argilophilus Eisen, 1893 species were originally in Plutellus Perrier, 1873 but Gates (1972: 38) argued that they would belong better in a genus such as the American Argilophilus rather than what we now know to be an Australian restricted Plutellus that has extramural calciferous glands and regularly alternating nephropores [see redescriptions of Plutellus in Blakemore (1994: 35; 2000a: 190)]. Probably Indo-Oriental species will have to go into another genus, but such a move is deferred pending resolution of the North American taxa and comparison with the Asian.

# Argilophilus arborensis (Stephenson, 1914).
- Argilophilus ambiguus (Gates, 1931).
- Argilophilus compositus (Gates, 1933) (syn. Plutellus inflexus var. compositus).
- Argilophilus comptus (Gates, 1955).
- Argilophilus geminatus (Gates, 1961).
# Argilophilus himalayanus (Gates, 1945).
- Argilophilus inflexus (Stephenson, 1931).
- Argilophilus leucaspis (Gates, 1955).
- Argilophilus longus (Gates, 1955).
-Argilophilus macer (Gates, 1955).
-Argilophilus montanus (Gates, 1961).
-Argilophilus pandus (Gates, 1933).
-Argilophilus pauxillulus (Gates, 1955).
-Argilophilus pratensis (Gates, 1932).
-Argilophilus rudis (Gates, 1961).
#Argilophilus sikkimensis (Gates, 1955).
-Argilophilus subtilis (Gates, 1955).
-Argilophilus tenuis (Gates, 1961).
-Argilophilus thanbulanus (Gates, 1955).

*Pontodrilus litoralis (Grube, 1855) [syn. marionis; bermudensis, matsushimensis, albanyensis, cygni, indica, gracilis; full synonymy in Blakemore (2002)].

*Lampito mauritii Kinberg, 1866.

*Lenoscolex javanica (Michaelsen, 1910).
*Lenoscolex pumila (Stephenson, 1931).

-Nelloscolex burkili (Michaelsen, 1907) (formerly Woodwardia or, rather, Woodwardiella).
#Nelloscolex strigosus Gates, 1939 from Assam, India (now in Notoscolex).

-Planapheretima arboricola (Rosa, 1890) [Easton (1979: 76-77) explains in detail how Gates (1936; 1972: 141; 169), Sims & Easton (1972: 233) and Reynolds & Cook (1976: 71) have mixed re-descriptions and the holotype (Genoa 44017) of Rosa's inadequate Perionyx arboricola with Gates' "Pheretima arboricola Gates, 1936" that, however, belongs in synonymy. The paratype of Perionyx arboricola in Berlin (2270) is a juvenile of uncertain identity]. Having manicate intestinal caeca indicated that the genus is polyphyletic and that this species possibly warrants allocation to a new genus.

-Perionyx ditheca Stephenson, 1931 (non Pheretima ditheca Michaelsen, 1928)
*Perionyx excavatus Perrier, 1872 [syns. numerous, see Blakemore (2002)].
#Perionyx fossus Stephenson, 1920.
#Perionyx horai Stephenson, 1924.
*Perionyx macintoshii Beddard, 1883 (corr. of m'intoshii or m'intoshi).
#Perionyx modestus Stephenson, 1922.
#Perionyx rufulus Gates, 1945.
#Perionyx shillongensis Stephenson, 1920.
#Perionyx turaensis Stephenson, 1920.
-Perionyx viridis Gates, 1933.

#Amythes aculeata (Gates, 1936).
*Amythus alexandri alexandri* Beddard, 1901 (syn. *lignicola* Stephenson, 1914), (A, R, AR, ARZ, I and Hp morphs reported by Gates, 1972) Gates (1931: 363) had earlier suggested that *Pheretima suctoria mullani* Stephenson, 1924: 340 was a further synonym of a *P. alexandri typica* sub-species.
*Amythus analactus analactus* (Gates, 1932).
*Amythus analactus rufulus* (Gates, 1932).
#Metaphire andamanensis (Michaelsen, 1907).
*Amythus comptus* (Gates, 1932).
*Amythus longicauliculatus* (Gates, 1931).
*Amythus labosus* (Gates, 1932).
*Amythus sonellus* (Gates, 1936).
*Amythus luxus* (Gates, 1936).
*Amythus choprai* (Stephenson, 1929) (originally *andersoni choprai*).
[-*Pheretima arboricola* Gates, 1936: 399 (In error - see *Planapheretima arboricola*)].
#Amythus balteolatus (Gates, 1932: 425).
#Amythus bellatulus (Gates, 1932: 427).
*Pithemera bicincta* (Perrier, 1875).
*Metaphire bipora* (Beddard, 1901) (syn. *annandalei* Stephenson, 1917; *gemella* Gates,
Amynthas birmanica (Rosa, 1888) (introduced into western Himalayas, India).

Amynthas bournei (Rosa, 1890).

Metaphire californica (Kinberg, 1867) (syns. numerous including Pheretima molesta Gates, 1932: 420, see Blakemore, 2002).

Amynthas canaliculatus (Gates, 1932).


Amynthas defectus (Gates, 1930) (syn. jacita Gates, 1931).

Amynthas corticis (Kinberg, 1867) (syn. numerous, see Blakemore, 2002).

Amynthas doliarius doliarius (Gates, 1931: 374) [syn. referta Gates, 1931; Pheretima doliaria dolosa Gates, 1932: 416 (non P. dolosa Gates, 1932: 443), provisionally regarded as a synonym by Sims & Easton (1972: 234) in their footnote but without any justification, possibly to avoid the problem of homonymy. Gates (1932: 415-419) had four sub-species: typica, armillata, dolosa, and stercoraria. However, Gates (1972: 180-181) only explicitly listed the referta synonym and we can only assume that he intended all the sub-specific names to be merged, thus they are all relisted here with a '?'].

Amynthas doliarius armillatus (Gates, 1932: 415).

Amynthas doliarius dolosus (Gates, 1932: 415) [non Pheretima dolosa Gates, 1932: 443 primary homonym (= Amynthas gegatesi Blakemore, 2006 nom. nov.)].

Amynthas doliarius stercoraria (Gates, 1932: 415).


Polypheretima elongata (Perrier, 1872) (syn. numerous, see Blakemore, 2002).

Amynthas exiguis australis (Gates, 1932).

Amynthas exiguis exiguis (Gates, 1930) (Pheretima exigua nom nov. pro Pheretima minuta Gates, 1929, non Amynthas minutus Beddard, 1900).

Amynthas facetus (Gates, 1932) [attributing specimens from Truk to "P. faseta Gates, 1932" by Ohfuchi (1941) were misidentifications and mispellings].

Amynthas feae (Rosa, 1888) (name sometimes misspelt "feai").

Amynthas fluvialis (Gates, 1939) [= Amynthas mekongianus (Cognetti, 1922) by Blakemore (in press)].

Amynthas fucosus (Gates, 1933).

Amynthas glabrus (Gates, 1932) (syn. tenellula Gates, 1932; vieta Gates, 1936;

#Metaphire harrietensis Stephenson, 1925 (from Mt Harriet, Andaman Island).

*Amynthas gracilis* (Kinberg, 1867) (many synonyms - see Blakemore, 2002, 2003; I-morphs lacking some spermathecal batteries are known).


#Amynthas hupbonensis* (Stephenson, 1931) (from Thailand).

?#Amynthas illotus (Gates, 1932) (from Yunnan, China).

?-Amynthas ? immertitus (Gates, 1931).


- Metaphire insulanus (Gates, 1930).

- Metaphire kengtungensis (Gates, 1931).

- Metaphire lorella (Gates, 1936).

#Amynthas malacus* (Gates, 1936) (Pheretima malaca Gates, 1936 nom. nov. pro Pheretima maculosa Gates, 1933 [non Pheretima maculosus [sic] Hatai, 1930 (= A. acinctus)]. Note: Nakamura (1999: 2) proposed the superfluous and invalid replacement name “Pheretima medimaculosa” now a nomen nudum, for Gates’s *A. maculosus*. Quite widespread in Myanmar, this species subsequently reported from India’s Andaman Islands by Julka (1975).

darnleiensis. Note: Gates (1972: 199) dated this species as "1901" but other authors accept it to be "Beddard, 1900". [Some names included by Gates (1972: 199) in his synonymy of M. malayana [viz. Perichaeta boschae Horst, 1892: 324; Amyntas (sic) pulauensis Beddard, 1900: 904; and A. evansi Beddard, 1900: 907], must be questioned as several of these names have been restored. It is with this synonymy by Gates (1972) that many other of his synonyms must be brought into doubt as his actions seem inconsistent and erroneous thereby inviting reversal, rejection, or restoration of several of his other nomenclatural acts].

*Amynthas manicatus decorosus* (Gates, 1932) [Pheretima manicata supina Gates, 1932: 528, 529; synonymy by Gates (1960: 268; 1972: 201)].

*Amynthas manicatus manicatus* (Gates, 1931) [Pheretima manicata Gates, 1931:414 comb. nov. pro Pheretima suctoria manicata Gates, 1931: 412 (Gates, 1932: 527; 1939: 97) (non suctoria Michaelsen, 1907) - see Sims & Easton (1972: 235 footnote) which states this much].


-Amynthas nugalis (Gates, 1931).

#Amynthas osmastoni (Michaelsen, 1907) (Pheretima "osmatoni" : Gates, 1960: 268 (lapsus for osmastoni); also sometimes misspelt "osmantoni"). (From Andaman Islands, India).

-Amynthas papilio hiulcus (Gates, 1932: 402).

-Amynthas papilio vespertilio Blakemore, 2006 [nom. nov. pro Pheretima papilio insignis Gates, 1932: 404 (non Pheretima insignis Michaelsen, 1921)].

-Amynthas papilio papilio (Gates, 1930) [Gates (1972: 205) rejects Ohfuchi’s (1956) report of P. papilio from the Ryukyu Islands (?= A. glabrus)].

*Amynthas papulosus* (Rosa, 1896) (Pheretima papulosa var. sauteri Michaelsen, 1922
(non Ohfuchi, 1956 - misidentification); *Pheretima composita* Gates, 1932; ?*Pheretima rockefelleri* Chen, 1933 syn. *P. hsinpuensis* Kuo, 1985. [Gates (1972: 207) thought that the parthenogenetic *rockefelleri* morph (lacking prostates and sometimes with defective spermathecae) was only distinguished by quantitative differences, but recently Shen et al. (2003) disputed inclusion of *A. rockefelleri* in *A. papulosus* and retained both taxa but suggested adding *A. hsingpuensis* to synonymy of the former].

- *Amynthas pauxillulus* (Gates, 1936: 442).


#*Metaphire bahli* (Gates, 1945) [possibly a junior synonym of *M. peguana*, but Gates (1972: 210) also went on to describe a *Pheretima* sp. from Thailand that was close to *M. bahli*].

*Metaphire planata* (Gates, 1926).

*Metaphire posthuma* (Vaillant, 1868) (*Perichaeta affinis* Perrier, 1872). [Various A and I-morphs mentioned by Beddard (1900) were thought possible misidentifications by Gates (1972: 214)].


*Amynthas rimosus rimosus* (Gates, 1931) (known from Myanmar and Yunnan, China). (R and Hp and possibly I-morphs mentioned).

?-*Amynthas rimosus effeminatus* (Gates, 1932) [from Myanmar but overlooked by Gates (1972: 215), probably an R morph of the nominal sub-species].

*Amynthas rodericensis* (Grube, 1879) (*Perichaeta dyeri* Beddard, 1892; *Perichaeta sinensis* Beddard, 1892; *Perichaeta trinitatis* Beddard, 1896; *Perichaeta monilicystis* Michaelsen, 1892: 251).

#Metaphire scitula* (Gates, 1936) [from Andaman Islands, Ohfuchi's (1956) report from the Caroline Islands is clearly mistaken].

-Metaphire subtilis* (Gates, 1943).

*Amyntas suctorius* (Michaelsen, 1907) (from Andaman and Nicobar Islands).

-Amyntas sulcatus* (Gates, 1932).

*Polypheretima taprobanae* (Beddard, 1892) (*Perichaeta pauli* Michaelsen, 1897) (not yet known from Myanmar).

-Amyntas terrigenus* (Gates, 1932).

-Metaphire umbraticola* (Gates, 1933).

*Metaphire virgo* (Beddard, 1901) [*Amyntas perichaeta* Beddard, 1901: 896; *Pheretima mamillana* Gates, 1931: 400; *P. mendoza* Gates, 1932: 538]. [These synonyms from Gates (1972: 223) who also listed A-morphs].

*Amyntas youngi* (Gates, 1932: 406) (from Myanmar and Yunnan, China; possibly H-morph junior synonym of *Pheretima illota* Gates, 1932: 397).

-Tonoscolex birmanicus* (Gates, 1927) (originally *Notooscolex birmanicus*).

-Tonoscolex conversus* (Gates, 1930).

-Tonoscolex depressus* (Gates, 1929 - published "July or August, 1929") [*Notooscolex choprai* Stephenson, 1929 (presumably published after August); *N. sp f. prima* Gates, 1932: 373 - later cited in Reynolds & Cook (1976: 159) as *Notooscolex or Tonoscolex primus*].

-Megascolex ferinus* (Gates, 1933) a perichaetine species from Myanmar that Gates, for some reason, included in his genus *Tonoscolex*.  Now comb. nov.

#Megascolex horai* Stephenson, 1922, a perichaetine species from India that Gates, for some reason, included in his genus *Tonoscolex*, now restored to original genus.

-Tonoscolex lunatus* (Gates, 1929).

#Tonoscolex monorchis* (Stephenson, 1916) (originally *Megascolides "oneilli" var. monorchis*), probably belongs back in *Notooscolex*.

-Tonoscolex montanus* (Gates, 1936: 381) [inquirenda - Gates (1972: 230) lists his prior *Notooscolex sp., f. secunda* (sic) Gates, 1932: 373 in synonymy, but this is listed by Reynolds & Cook (1976: 168) as a sub-specific name and thus possibly competes with *montanus* for priority under ICZN (1999) code].

*Tonoscolex oneilli* (Stephenson, 1914) [Emend. to "oneili" by Stephenson (1923: 212)
and accepted by Gates (1936; 1972: 231) but possibly invalid emendation; probably belongs back in Notoscolex.

-Tonoscolex parvus (Gates, 1936: 386) [inquirenda - Gates (1972: 231) lists his prior Notoscolex sp., f. tertia (sic) Gates, 1932: 373 in synonymy, but this is listed by Reynolds & Cook (1976: 180) as a sub-specific name and thus possibly competes with parvus for priority under ICZN (1999) code].

-Tonoscolex quartus (Gates, 1932: 374) [inquirenda - Gates (1972: 232) lists this name cf. T. depressus, T. montanus and T. parvus].

#Tonoscolex striatus (Stephenson, 1914: 380) (Notoscolex stewarti Stephenson, 1914: 382) (from Assam, India), probably belongs back in Notoscolex.

-Tonoscolex triquetrus (Gates, 1932) (T. depressus var. scutatus Gates, 1933: 485).

#?Megascolides antrophyes Stephenson, 1924 (from Assam, India).

#Scolioscolides bergtheili (Michaelsen, 1907) (syn. S. berghtheili : Bahl, 1942: 446 - laps.). [From Bengal; Gates (1972) included this taxon under Octochaetidae, but in the classification of Blakemore (2000; 2002) it belongs in Megascolecidae].

MICROCHAETIDAE Beddard, 1895


?*Glyphidrilus papillatus (Rosa, 1890) (from Myanmar with possible reports from Lucknow, India and Hainan, China).

#Glyphidrilus spelaeotes Stephenson, 1924 (from Assam, India).

MONILIGASTRIDAE Claus, 1880

-Desmogaster albalabia Gates, 1930.
-Desmogaster doriae Rosa, 1890.
-Desmogaster ferina Gates, 1943.
-Desmogaster planata Gates, 1931.

-Hastirogaster browni (Michaelsen, 1907) [previously in the Sumatran and Borneo genus Eupolygaster].
Hastirogaster livida Gates, 1930.

*Drawida barwelli* (Beddard, 1886) [listed by Gates (1972: 246) as *D. beddardi* (Rosa, 1890) (syn. *D. barwelli* var. *hehoensis* + *D. “fluvaitilis”* Stephenson, 1924:324 + 325; *D. tecta* Gates, 1926), many other synonyms listed in Blakemore (2002 and in prep.) including syn. nov. *Drawida glabella* Chen, 1938 from Hainan].

- *Drawida caerulea caerulea* Gates, 1926.
- *Drawida caerulea rasilis* Gates, 1933.
- *Drawida constricta* Gates, 1929.

# *Drawida decourcyi* Stephenson, 1914 (from Assam, India).
- *Drawida flexa* Gates, 1929.
- *Drawida gracilis* Gates, 1925.

# *Drawida kempi* Stephenson, 1914: 376 (*D. rotungana* Stephenson, 1914: 372; *D. pellucida* : Stephenson, 1914 non Bourne, 1894!). [NOTE: Gates (1972: 250) has again confused page priority and it seems that the prior taxon is *D. rotungana* rather than *D. kempi*].

- *Drawida lacertosa lacertosa* Gates, 1930.
- *Drawida lacertosa sepulta* Gates, 1931 (originally *D. sepulta*).

# *Drawida limella* Gates, 1934 (from Assam, India).

* *Drawida longatria longatria* Gates, 1925 (*Moniligaster straeleni* Michaelsen, 1930) (from Myanmar and Sumatra).

- *Drawida longatria deminuta* Gates, 1930.
- *Drawida longatria tortuosa* Gates, 1931.
- *Drawida longatria ordinata* Gates, 1930.
- *Drawida longatria planata* Gates, 1931.
- *Drawida longatria verrucosa* Gates, 1931.
- *Drawida molesta* Gates, 1933.

# *Drawida montana* Gates, 1945 (from Assam, India).

# *Drawida nagana* Gates, 1945 (from Assam, India).

- *Drawida nana* Gates, 1933 (originally *Drawida longatria nana* Gates, 1933).

* *Drawida nepalensis* Michaelsen, 1907 (*D. burchardi* Michaelsen, 1909; *D. troglodytes* Stephenson, 1924; *D. cacharensis* Stephenson, 1926; *D. abscisa* Gates, 1931).

* *Drawida papillifer papillifer* Stephenson, 1917: 370 (*Drawida affinis* Stephenson, 1917: 368 (non *Dichogaster affinis*); *D. hodgarti* Stephenson, 1917: 366
Drawida papillifera peguana Gates, 1925. [NOTE: with loss of priority from papillifera in favour of hodgarti it seems best to elevate this taxon to species status as D. peguana].

Drawida rangamatiana Stephenson, 1917 (possibly a synonym of D. papillifer from Bengal, India).

Drawida pomella Gates, 1934 (possibly a synonym of D. papillifer from Assam, India).

Drawida rangoonensis Gates, 1925.

Drawida rara Gates, 1925.

Drawida spissata Gates, 1930.


Drawida tumida tumida Gates, 1929.


Drawida vulgaris Gates, 1930 (from Myanmar and Thailand).

OCNERODRILIDAE Beddard, 1891.


Malabarica levis (Chen, 1938) (from Hainan, China and Myanmar; Gates reports A and R-morphs).

Thatonia gracilis Gates, 1942 (from Andaman Islands, and Myanmar).

Curgiona narayani (Michaelsen, 1921) (originally in Curgia, from South India).


Eukerria saltensis (Beddard, 1895) (syn. Acanthodrilus sydneyensis Sweet, 1900 - from Fletcher’s ‘Museum Name’ according to Michaelsen, 1907a; Kerria gunningi Michaelsen, 1913; Kerria nichollsi Jackson, 1931).

Gorgiodrilus elegans (?) Beddard, 1892 (Gates mentions many parthenogenetic morphs).

Nematogenia panamaensis (Eisen, 1900) (originally Ocnerodrilus (Nematogenia)
lacuum var. panamaensis Eisen, 1900; Nematogenia josephina Cognetti, 1904).

*Ocnerodrilus occidentalis* Eisen, 1878 (?Ilyogena africana Beddard, 1893; Ocnerodrilus occidentalis sinensis Eisen, 1900; Ocnerodrilus tenellulus Gates, 1945; ?Ocnerodrilus occidentalis var arizonae Eisen, 1900).

OCTOCHAETIDAE Michaelsen, 1900

*Celeriella quadripapillata* (Stephenson, 1924) (originally Spencerialla duodecimalis f. quadripapillata). (From India, a single Myanmar record was unconfirmed).

*Dichogaster* (*Diplothecodrilus*) *affinis* (Michaelsen, 1890) [syn. *Benhamia mexicana* Rosa, 1891; *Benhamia crassa* Beddard, 1893; *Benhamia floresina* Horst, 1893; ?Dichogaster curgensis var. unilocularis* Stephenson, 1931: 69 [Gates (1972: 280) thought this a synonym of *D. curgensis* (= *D. annae*) and Csuzdi (1995: 103) has it as a syn. nov. there; Csuzdi (1996: 357) has it in synonymy with *D. affinis*; but Csuzdi (2000: 59) again has it within *D. annae*]; *Dichogaster sinuosus* Stephenson, 1931; *Dichogaster sinicus* Chen, 1938 (?nomen nudum *D. sinensis* Chen, 1938: 421, legend for fig. 18)].

*Dichogaster* (*Diplothecodrilus*) *bolaui* (Michaelsen, 1891) [corr. *bolaui*; syn. *Benhamia octonephra* Rosa, 1895; *Benhamia palmicola* Eisen, 1896; *Benhamia bolavi pacifica* Eisen, 1900; *Benhamia rugosa* Eisen, 1896; *Benhamia malayana* Horst, 1893; *Benhamia bolaui pacifica* Eisen, 1900; *Dichogaster bolaui decanephra* Michaelsen, 1915; *Benhamia lageniformis* Friend, 1916; *Dichogaster bolaui malabaricus* Stephenson, 1920; ?Dichogaster katomaana* Ohfuchi, 1957 - thought to be *D. saliens* by Easton (1981: 46)].

*Dichogaster* (*Diplothecodrilus*) *annae* (Horst, 1893) [syn. *Benhamia parva* Michaelsen, 1896 non *Moniligaster parva* Bourne, 1894 (= *Drawida barwelli*) nec *Dichogaster parvus* Fedarb, 1898 (= *Trigaster parva*); *Benhamia travancorensis* Fedarb, 1898; *Dichogaster curgensis* Michaelsen, 1921; ?Dichogaster curgensis var. unilocularis* Stephenson, 1931 [Gates (1972: 280) thought this a synonym of *D. curgensis* (= *D. annae*) and Csuzdi (1995: 103) has it as a syn. nov. and Csuzdi (1996: 357) has it in synonymy with *D. affinis*; but Csuzdi (2000: 59) again has it within *D. annae*]; *Dichogaster cheranganiensis* Cernosvitov, 1938; *Dichogaster silvestris cacaois* Righi, 1968; *Dichogaster servi* Righi & Ayres, 1975]. [Listed as *D. curgensis* by Gates (1972: 280), these synonyms are mostly from Csuzdi (1996: 357); Gates (1972: 278) noted that two taxa recorded from India, *Dichogaster parva* (Michaelsen, 1896), and *D. travancorensis
(Fedarb, 1898) that was claimed to have calciferous glands in 14-16, were inadequately characterized although Csuzdi (1996: 107) inspected types and found both to be synonymous with *D. annae*.

*Dichogaster (Diplothecodrilus) modiglianii* (Rosa, 1896) [syn. *Benhamia papillata* Eisen, 1896; *Benhamia papillata* var. *hawaiiensis* Eisen, 1900; *Benhamia kafuruensis* Michaelsen, 1896; *Benhamia nana* Eisen, 1896; *Dichogaster doveri* Stephenson, 1931]. [These synonyms from Csuzdi, 1996: 358; Csuzdi, 2000: 65].

*Eutypheus* (Diplothecodrilus) *saliens* (Beddard 1893) [syn. *M. asiaticus* (lapsus) Beddard, 1893: 706; *Dichogaster crawi* Eisen, 1900].

- *Eutypheus aborianus* Stephenson, 1914 (from Assam, India).
- *Eutypheus callosus* Gates, 1939 (from Assam, India).
- *Eutypheus assamensis* Stephenson, 1926 (from Assam, India).
  - *Eutypheus bifovis* Gates, 1929.
  - *Eutypheus bullatus* Gates, 1933.
- *Eutypheus callosus* Gates, 1939 (from Assam, India).
- *Eutypheus comillahnus* Michaelsen, 1907 (from E. Bengal, India).
  - *Eutypheus compositus* Gates, 1933 (originally *E. annulatus* var. *compositus*).
  - *Eutypheus constrictus* Gates, 1929.
  - *Eutypheus excavatus* Gates, 1929.
- *Eutypheus festivus* Gates, 1938 (from Assam, India)
  - *Eutypheus foveatus* (Rosa, 1890).
- *Eutypheus kempi* Stephenson, 1914 (from Assam, India).
  - *Eutypheus macer* Gates, 1933.
- *Eutypheus manipurensis manipurensis* Stephenson, 1921 (from Loktak Lake, Manipur, India).
-Eutyphoeus manipurensis chinensis Gates, 1933.
-Eutyphoeus marmoreus Gates, 1933.
-Eutyphoeus peguanus peguanus Gates, 1925 [how many of the sub-species and (illegitimate) varieties mentioned by Gates (1972) that are valid taxa is unsure].
-Eutyphoeus pusillulus Gates, 1931.
-Eutyphoeus quinquepertitus Gates, 1930.
-Eutyphoeus rarus Gates, 1925.
-Eutyphoeus scutarius Michaeelsen, 1907.
-Eutyphoeus sejunctus Gates, 1930.
-Eutyphoeus spinulosus Gates, 1926.
-Eutyphoeus strigosus Gates, 1933.

#Eutyphoeus turaensis Stephenson, 1920 (from Assam, India).

*Lennogaster chittagongensis* (Stephenson, 1917) (originally *Eudichogaster c.*).

(From India, BanglaDesh and Myanmar).

-Lennogaster yeicus* (Stephenson, 1931) (originally *Eudichogaster y.*).

*Octochaetona beatrix* (Beddard, 1902) (syn. *Octochaetus dasi* Stephenson, 1914; *Octochaetus lunatus* Gates, 1929; *Octocheatus (Octochaetoides) fermori* Stephenson, 1931. (From India, Myanmar, Nepal, Malaysia, Philippines and recorded for the first time outside Asia, in Australia, by Blakemore (1994a; 1999; 2000).


*Ramiella bishambari* (Stephenson, 1914) (syn. *?R. parva* Stephenson, 1924; *R. cultrifera* Stephenson, 1931; *?Howascolex sinicus* Chen, 1936). (From Andaman Islands,
India, Myanmar, Christmas Island (Australian Territory), Philippines, ?Amoy (China - identified as *Howascolex sinicus* Chen, 1936).

?-*Ramiella parva* Stephenson, 1924 (possibly synonymous with *R. bishambari* according to Gates, 1972: 313).

MICRODRILI (Noted by Gates, 1972 in an Appendix)

**Enchytraeidae**

?*Hemienchytraeus rangoonensis* (Stephenson, 1931). (Possibly junior synonym of *H. stephensoni*).


**Naididae**

- *Chaetogaster diastrophus* (Gruithuisen, 1828) (syn. *C. annandalei* Stephenson, 1917).

?*Chaetogaster limnaei* Baer, 1827 (?syn. *C. bengalensis* Annandale, 1905).

#*Slavina appendiculata* (d'Udekem, 1855) (from Andaman Islands).

- *Aulophorus furcatus* (Oken, 1815).

#*Nais communis* Piguet, 1906 (from Assam, India).

**Tubificidae**

#*Bothrioneuron iris* Beddard, 1901 (from Thailand, India).

*Branchiura sowerbyi* Beddard, 1892 (from Myanmar and Assam, India).


-Limnodrilus grandisetosus* Nomura, 1932.

#*Tubifex blanchardi* Vejdovsky, 1891

# = regional taxa (e.g. from India's Assam or Andaman Islands or Yunnan, China) but not from Myanmar proper yet reported by Gates (1972); * = also known outside Myanmar (i.e., exotic/introduced or widespread); - = only known from Myanmar (i.e., native/endemic); ? = some uncertainty of name.

**References**

Queensland. Pp 605 with the description of 75 species, including 80 figures.


Csuzdi, Cs. (1995). A catalogue of Benhamiinae species (Annelida: Oligochaeta:


[End of Myanmar list].