

Korean earthworm species - updated checklist by R.J. Blakemore December, 2008

The geographical region is the Korean peninsula and offshore Chejoo-do or Cheju (Quelpart), Jeju-do, Ulleungdo (Dagelet) and Geoje-do Islands. Total land area of the peninsula, including 3,580 smaller islands, is ca. 220,847 sq. kilometers (vs. Japan 376,520 sq. km). The current list compiles 94 (ca. 69 pheretimoids). Earthworm species from Korea with dubious reports or debatable synonyms are marked with a "?" -resolution of the Korean taxa requires full and complete study of the fauna of adjacent regions, especially of Japan, China and Siberia. This most current and complete list of Korean taxa, allows for a relationship to those in adjacent countries and the Rest of the World. References may be found by internet search. Family classification follows Blakemore (2000). Exotic species are marked with an asterisk "*".

An online list from the "Korean Institute for Earthworm Research" and the "*Korean Earthworm Database*" lists just 40 species [http://earthworm.chonbuk.ac.kr/db_list/search_eng.asp and http://biodiv.ccbb.re.kr/~geoworm/renew/sub_db_list00.php March, 2006, maintained by Professor Kim Tae-Hung (also as Dr Tae-Heung Kim) of Chunbook University, Department of Bioscience (or Chollapuk_do University Agricultural Department or Dept. Agrobiology, Junbook University) who was uncontactable due to obsolete email addresses]. Another dubious site calls itself "*The Biodiversity Bank of Terrestrial Annelids*" [http://www.annelids.org/bbta/Main/main_3_2_1.asp] at the "*College of Natural Science, Dept. Life Science, Chung-Ang University, Seoul*" and appears as flawed as its title.

Checklist of valid species:

Moniligastridae

1. *Drawida anchingiana* Chen, 1933 (originally *D. gisti* var. *anchingiana*) from Quelpart Isl.
2. *Drawida gisti* Michaelsen, 1931
3. *Drawida guryeensis* Hong, 2002
4. *Drawida japonica* (Michaelsen, 1892)*
5. *Drawida jirisanensis* Hong, 2002
6. *Drawida keikiensis* Kobayashi, 1938
7. *Drawida koreana* Kobayashi, 1938.
8. *Drawida nemora* Kobayashi, 1936
9. *Drawida songae* Hong, 2002

Lumbricidae

1. *Aporrectodea caliginosa* (Savigny, 1826)*

2. *Aporrectodea trapezoides* (Dugès, 1828)*
3. *Aporrectodea tuberculata* (Eisen, 1874)*
4. *Aporrectodea rosea* (Eisen, 1874)*
5. *Bimastos parvus* (Eisen, 1874) [also reported as *Bimastos beddardi* (Michaelsen, 1894)].*
6. *Dendrodrilus rubidus rubidus* (Savigny, 1826)*
7. *Dendrodrilus rubidus tenuis* (Eisen, 1874) [reported by Kobayashi (1941)].*
8. *Eisenia andrei* Bouché, 1972 [possibly a synonym or sub-species of *E. fetida*].*
9. *Eisenia fetida* (Savigny, 1826) [often still misspelt "foetida"].*
10. *Eisenia japonica* (Michaelsen, 1892) [syns. *Allolobophora japonica* f. *gigantica* Oishi, 1934; *Allolobophora japonica* f. *minuta* Oishi, 1934].*
11. *Eisenia koreana* (Zicsi, 1972) [originally in *Eiseniella*, transfer by Easton (1983)].
12. *Eisenia nordenskioldi nordenskioldi* (Eisen, 1879)*
13. ?*Eisenia nordenskioldi pallida* Malevic, 1956 **species inquirenda** [syn. *E. acystis* (Michaelsen, 1903) reported from northern Korea by Perel (1997: 22, 70)].*
14. ?*Lumbricus rubellus* Hoffmeister, 1843 [sourced from Giheung Farmer School, Korea by Cho *et al.*, (2004) *Journal of Biochemistry and Molecular Biology*, 37, No. 2:199-205 (http://www.jbmb.or.kr/jbmb/jbmb_files/%5B37-2%5D0404011548_199-205.pdf) but, if cultured, it is more likely to be *Eisenia fetida*].*
15. ?*Lumbricus terrestris* Linnaeus, 1758 [a highly improbable report from a Seoul sewage treatment plant by Lee, E.Y. *et al.* (2002) *Journal of Environmental Quality* 31:1782-1788].*

Megascolecidae

1. *Amyntas acinctus* (Goto & Hatai, 1899)
2. *Amyntas angulatus* Hong, 2007
3. *Amyntas assimilis* Hong & Kim, 2002
4. *Amyntas agrestis* (Goto & Hatai, 1899) [syn. *Pheretima striata* Ishizuka, 1999; *Amyntas minjae* Hong, in Hong, Lee & Kim, 2001 **syn. nov.**].*
5. *Amyntas baemsagolensis* Hong & James, 2001
6. *Amyntas bubonis* Hong & James, 2001
7. *Amyntas carnosus* (Goto & Hatai, 1899) [syns. *Pheretima kyamikia* Kobayashi, 1934; ?*Amyntas youngtai* Hong & James, 2001; *Amyntas sangyeoli* Hong & James, 2001; ?*Amyntas nanshanensis* Shen *et al.*, 2003]*.
8. *Amyntas corticis* (Kinberg, 1867) [many synonyms including *P. diffringens* Baird, 1869 still cited from Korea by Hong & James (2001: 92); and *P. morii* Kobayashi, 1938].*
9. *Amyntas cuneatus* Hong & James, 2001 [possibly belongs in *Metaphire*].

10. *Amyntas deogyusanensis* Hong & James, 2001
11. *Amyntas draconis* Hong & James, 2001
12. *Amyntas ephippiatus* Hong & Lee, 2001
13. *Amyntas fibulus fibulus* (Kobayashi, 1936)
14. *Amyntas fibulus ranunculus* (Kobayashi, 1936)
15. *Amyntas geojeinsulae* (Song & Paik, 1970)
16. *Amyntas geomunensis* Hong & James, 2001 [probably belongs in *Metaphire*].
17. *Amyntas gongjuensis* Hong & Kim, 2002
18. *Amyntas gyeryongensis* Hong & Kim, 2002
19. *Amyntas hupeiensis* (Michaelson, 1895)*
20. *Amyntas jamesi* Hong, 2007
21. *Amyntas jangbogoi* Hong & James, 2001
22. *Amyntas jindoensis* Hong & James, 2001
23. *Amyntas kanrazanus incretus* (Kobayashi, 1937: 340) (syn. *Amyntas alveolatus* Hong & James, 2001).
24. *Amyntas kanrazanus kanrazanus* (Kobayashi, 1937: 340) [cf. *Amyntas yongshilensis* Hong & James, 2001].
25. *Amyntas kimhaeiensis* Hong & James, 2001
26. *Amyntas kobayashii* (Kobayashi, 1938)
27. ?*Amyntas koreanus* (Kobayashi, 1938) [syns. *Pheretima conjugata* Ishizuka, 1999 - synonym as per Blakemore (2003: 43, addenda) although *koreana* and *conjugata* may well be the same as *P. schizopora* (Goto & Hatai, 1898) and therefore enter the ambit of *Amyntas tokioensis* - pers. obs.; originally *Pheretima koreana*].
28. *Amyntas moakensis* Hong & Kim, 2002
29. *Amyntas monstriferus* (Kobayashi, 1936) [miscited as "*A. monstrifera*" by Hong & James (2001)].
30. *Amyntas mujuensis* Hong & Kim, 2002
31. *Amyntas multimaculatus* Hong & Lee, 2001
32. *Amyntas murayamai* (Kobayashi, 1938: 164)
33. *Amyntas naejangensis* Hong & James, 2001
34. *Amyntas oviformis* Hong & James, 2001
35. *Amyntas. pagyeiensis* Hong in Hong, Lee & Kim, 2001
36. *Amyntas palgongensis* Hong in Hong, Lee & Kim, 2001 [possibly same as *A. draconis*].
37. *Amyntas phaselus* (Hatai, 1930) [syns. ?*Pheretima maculosus* [sic] Hatai, 1930b: 661 (non *Pheretima maculosa* Gates, 1933 = *Pheretima malacus* Gates, 1936); *Pheretima kamitai* Kobayashi, 1934; *Pheretima serrata* Kobayashi, 1936); *Pheretima phaselus tamurai*

- Kobayashi, 1938; *Pheretima mutica* Chen, 1938].
38. *Amyntas piagolensis* Hong & James, 2001
 39. *Amyntas plantus* (Song & Paik, 1973)
 40. *Metaphire quelparta* (Kobayashi, 1937)
 41. *Amyntas reisuiensis* (Kobayashi, 1938)
 42. *Amyntas robustus* (Perrier, 1872) [several synonyms including *Perichaeta masatakae* Beddard, 1892].*
 43. *Amyntas sangumburi* Hong & Kim, 2002 (sometimes miscited as “sangumburiensis” e.g. http://www.annelids.org/bbta/Main/main_3_2_1.asp).
 44. *Amyntas serratus* (Kobayashi, 1936)
 45. *Amyntas seungpanensis* (Song & Paik, 1970) [sometimes misspelt " Ph. seungpanesis"].
 46. *Amyntas sinsiensis* Hong & James, 2001
 47. *Amyntas songnisanensis* Hong & Lee, 2001
 48. *Amyntas sopaikensis* (Song & Paik, 1973)
 49. *Amyntas susakii patinus* (Kobayashi, 1936: 171)
 50. *Amyntas susakii susakii* (Kobayashi, 1936: 171)
 51. *Amyntas taebaekensis* Hong & James, 2001
 52. *Amyntas tappensis* (Ohfuchi, 1935) [syns. *Pheretima bimaculata* Ishizuka, 1999; *Pheretima silvatica* Ishizuka, 1999; ?*Pheretima surcata* Ishizuka, 1999 (cf. *A. tokioensis*); *Amyntas odaesanensis* Hong & James, 2001; *Amyntas righii* Hong & James, 2001; *Amyntas fasciiformis* Hong & James, 2001 - synonym as per Blakemore (2003: 43, addenda, 2005); ?*sanchongensis* Hong & James, 2001 **syn. nov.** - if not synonymous then its possible non-superficial male pores qualify it for *Metaphire hilgendorfi* and its ilk].
 53. ?*Amyntas tokioensis* (Beddard, 1892) [syns. ?*schizopora*, ?*irregularis*, *levis*, ?*parvicystis*; ?*verticosa*; ?*yongshilensis* Hong & James, 2001, ?*eastoni* Hong & James, 2001; ?*boletiformis* Hong & James, 2001 (these last two synonyms as per Blakemore, 2003: 43, addenda); ?*gucheonensis* Song & Paik, 1970; *jiriensis* Song & Paik, 1971; ?*paiki* Hong in Hong, Lee & Kim, 2001 **syns. nov.** (these last three synonyms as per Blakemore, 2006, 2008)]?*
 54. *Amyntas vallis* (Kobayashi, 1936)
 55. *Amyntas vicinus* Hong & James, 2001
 56. *Amyntas vittatus* (Goto & Hatai, 1898) [cf. *A. tokioensis*].
 57. *Amyntas yeoi* Hong & Kim, 2002
 58. *Amyntas yongshilensis* Hong & James, 2001 [cf. *A. kanrazanus*].
 59. *Amyntas yunseondoi* Hong, 2007
 60. *Metaphire aggera* (Kobayashi, 1934)

61. *Metaphire bitheca* (Kobayashi, 1938)
62. *Metaphire hilgendorfi* (Michaelsen, 1892) [many synonyms including *irregularis*].*
63. *Metaphire koryoensis* (Kobayashi, 1936)
64. *Metaphire megascolidoides* (Goto & Hatai, 1899)
65. ? *Metaphire soulensis* (Kobayashi, 1938) [syns. *Pheretima shinkeiensis* Kobayashi, 1938; *Pheretima aokii* Ishizuka, 1999 - synonymy as per Blakemore (2003: 43) plus ? *dageletensis* Hong, Yong & Kim, Tae-Heung, 2005 ?**syn. nov.** – yet another “junk” name unnecessarily provided for a parthenogenetic “tube” that could be a synonym of any of the *M. hilgendorfi/A. tokioensis* group names erected in the last Century, if these authors had bothered to do even the most basic of basic research on Japanese or other World records (e.g. by Michaelsen, 1900; publications by Gates or Blakemore, 2000, 2003, etc. etc.)].*
66. ? *Metaphire vesiculata* (Goto & Hatai, 1899) [syns. ?*Pheretima okutamaensis* Ishizuka, 1999; ?*Pheretima biggiberosa* Ishizuka, 1999].
67. ? *Metaphire yamadai* (Hatai, 1930) [*Metaphire yamardai*: (sic lapsus pro *yamadai*) Easton, 1981: 60 (syn. *soulensis* - but this not accepted here, see *Metaphire soulensis*). Easton (1981: 60) had distribution as "Japan, China, Korea", but Korea is probably just for his *soulensis* synonym; whereas Kobayashi (1939) just claims *yamadai* in Japan and China].
68. *Perionyx excavatus* Perrier, 1872*
69. *Pithemera sempoensis* (Kobayashi, 1938: 149) [seminal groove on 18; caeca in 24].

Pheretima keishuensis Kobayashi, 1938: 90 is a *nomen nudum* (?= *M. quelparta*).

* Exotic or peregrine species are marked with an asterisk "*".

[End of Korean species checklist].