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Introduction to the Monograph of Annelida: Oligochaeta: Haplotaxidae, Lumbriculidae, Naididae and Tubificidae in China

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Volume 64 of invertebrates in the Fauna of China, Annelida: Oligochaeta: Haplotaxidae, Lumbriculidae, Naididae and Tubificidae, will be published soon.

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This volume describes 190 species of Oligochaeta in China, belonging to 4 families and 58 genera (Table 1). There are 114 species in 40 genera of freshwater oligochaetes, 78 species in 21 genera of marine ones, and 3 species in 3 genera of terrestrial species, accounting for 60.0%, 41.1% and 1.6% of the total, respectively.

TABLE 1. List of species in the Monograph.

	Family/Genus	Species
	HAPLOTAXIDAE	
1	*Haplotaxis*	*gordioides*; *glandularis*
	LUMBRICULIDAE	
2	*Lumbriculus*	*variegatus*
3	*Styloscolex*	*tetrathecus*
	NAIDIDAE	
4	*Chaetogaster*	*diastrophus*; *langi*; *diaphanous*; *cristallinus*; *limnaei*; *limnaei limnaei*; *limnaei bengalensis*
5	*Aulophorus*	*tonkinensis*; *heptabranchionus*; *flabelliger*; *pectinatus*; *furcatus*; *varians*
6	*Dero*	*dorsalis*; *trifida*; *asiatica*; *digitata*; *obtusa*; *nivea*
7	*Branchiodrilus*	*semperi*; *hortensis*
8	*Uncinais*	*uncinata*
9	*Ophidonais*	*serpentina*
10	*Paranais*	*frici*; *litoralis*; *plenus*
11	*Amphichaeta*	*asiatica*
12	*Haemonais*	*waldvogeli*
13	*Stephensoniana*	*trivandrana*
14	*Bratislavia*	*prosetosa*; *unidentata*
15	*Slavina*	*appendiculata*
16	*Ripistes*	*parasita*
17	*Arcteonais*	*lomondi*
18	*Stylaria*	*fossularis*; *lacustris*

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TABLE 1. (Continued)

	Family/Genus	Species
19	*Piguetiella*	*denticulata*
20	*Specaria*	*josinae*
21	*Vejdovskyella*	*simplex*
22	*Nais*	*barbata*; *simplex*; *behningi*; *badia*; *longidentata; variabilis*; *pardalis*; *communis*; *bretscheri; elinguis*; *inflata*
23	*Allonais*	*paraguayensis*; *gwaliorensis; pectinate; inaequalis*
24	*Pristina*	*sima; changtuensis*; *jenkinae*; *osborni*; *acuminata*; *aequidentata*; *proboscidea*; *longiseta*; *synclites*; *breviseta*; *biserrate*; *aequiseta*; *americana*
	TUBIFICIDAE	
	RHYACODRILINAE	
25	*Branchiura*	*sowerbyi*
26	*Bothrioneurum*	*grandisetosum*; *vejdovskyanum; iris*
27	*Paupidrilus*	*breviductus*
28	*Monopylephorus*	*parvus; rubroniveus; limosus*
29	*Heronidrilus*	*hutchingsae*; *bihamis; fastigatus*
30	*Heterodrilus*	*keenani*; *uniformis*; *virilis*; *chenianus*; *nudus*
31	*Ainudrilus*	*pauciseta*; *geminus*; *taitamensis*; *gibsoni*; *semicapillatus*; *lutulentus*
32	*Rhyacodrilus*	*sinicus; stephesoni*; *riabuschinskii*
33	*Rhizodrilus*	*russu*s
	TUBIFICINAE	
34	*Spirosperma*	*nikolskyi; ferox; apapillatus*
35	*Isochaetides*	*palmatus*
36	*Chenidrilus*	*asiaticus*
37	*Limnodrilus*	*simplex*; *amblysetus; paramblysetus; hoffmeisteri*; *claparedeianus*; *paraclaparedianus*; *grandisetosus*; *udekemianus*; *profundicola*
38	*Teneridrilus*	*mastix*
39	*Tubificoides*	*imajimai*
40	*Aulodrilus*	*limnobius*; *americanus*; *pigueti*; *pluriseta*; *japonicus; pectinatus; apenis*
41	*Ilyodrilus*	*templetoni; mesoprostatus*
42	*Potamothrix*	*paramoldaviensis*; *aductus*; *praeprostatus*; *scleropenis*; *parabedoti*; *rhytipeniatus*; *bedoti*
43	*Tubifex*	*montanus*; *latus*; *tubifex*; *conicus*; *slendera*
44	*Varichaetadrilus*	*vestibulatus*
	TELMATODRILINAE	
45	*Telmatodrilus*	*vejdovskyi*
	PHALLODRILINAE	
46	*Duridrilus*	*piger*; *tardus*
47	*Bathydrilus*	*edwardsi*; *ampliductus*
48	*Aktedrilus*	*mortoni*; *longitubularis*; *sinensis*; *cuneus*; *parvithecatus*; *floridensis*; *yiboi*; *cavus*; *parviprostatus*; *locyi*
49	*Jamiesoniella*	*enigmatica*; *athecata*
50	*Gianius*	*eximius*
51	*Pacifidrilus*	*vanus*; *darvelli*
52	*Pectinodrilus*	*molestus*; *disparatus*; *hoihaensis*
53	*Uniporodrilus*	*furcatus*

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TABLE 1. (Continued)

	Family/Genus	Species
	LIMNODRILOIDINAE	
54	*Doliodrilus*	*bisaccus*; *bidolium*; *chinensis*; *tener*; *diverticulatus*; *ciliates*; *longidentatus*; *adiacens*; *fibrisaccus*; *brachyductus*
55	*Thalassodrilides*	*gurwitschi*; *briani*
56	*Smithsonidrilus*	*irregularis*; *tenuiculus*; *tuber*; *minusculus*; *vesiculatus*
57	*Limnodriloides*	*macinnesi*; *biforis*; *fraternus*; *uniampullatus*; *victoriensis*; *fuscus*; *tenuiductus*; *agnes*; *virginiae*; *parahastatus*; *lateroporus*; *rubicundus*; *toloensis*; *pierantonii*
58	*Tectidrilus*	*achaetus*; *pictoni*

The distribution of freshwater earthworms in China has obvious regional characteristics. For example, 79 species of 34 genera have been recorded in Central China and 71 species of 29 genera have been recorded in Southwest China, while Northeast China is the least, with only 27 species of 15 genera recorded. In recent years, the number of species recorded in Qinghai-Xizang Region has gradually increased to 44 species of 19 genera (Figure 1).

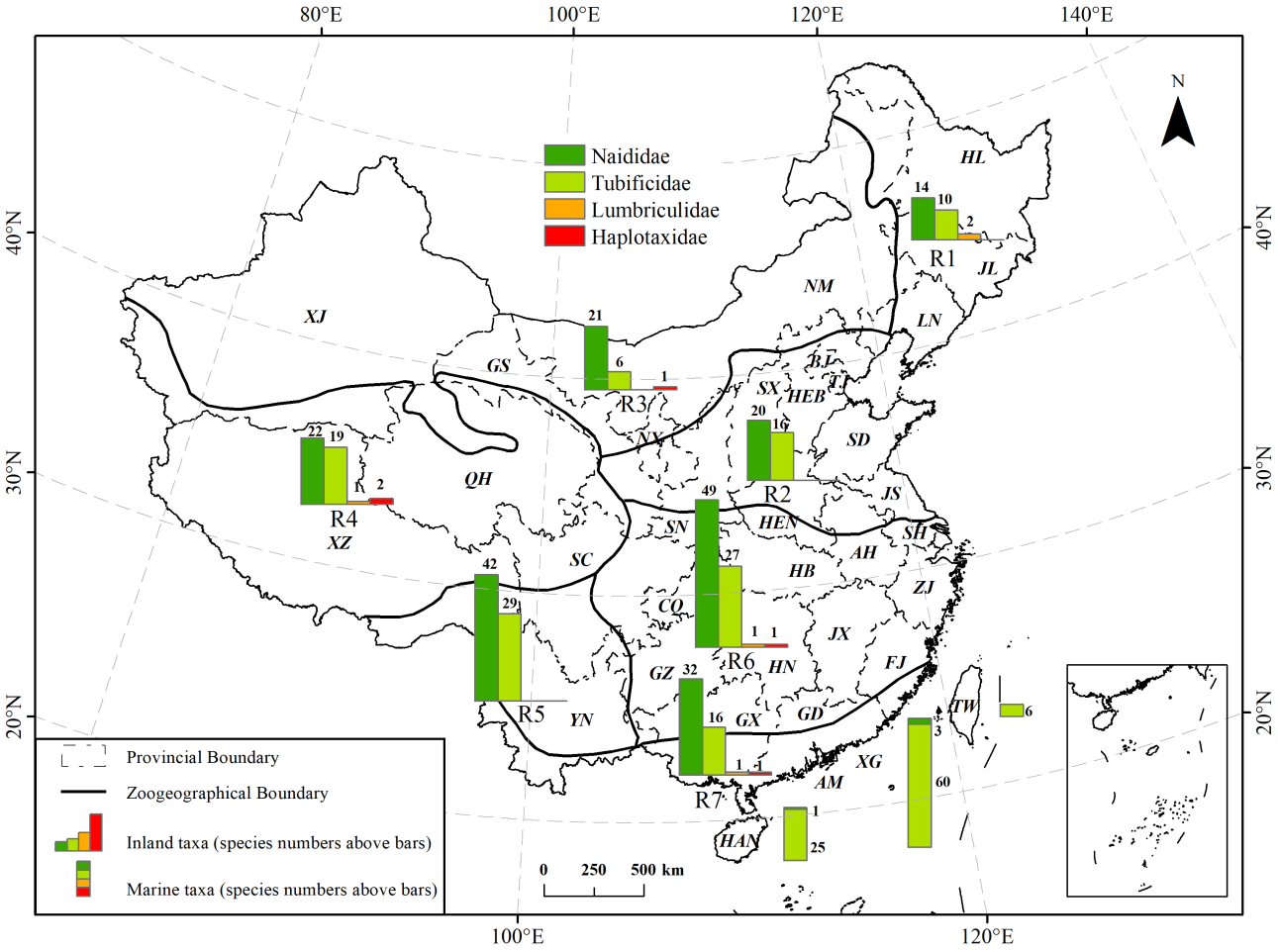

FIGURE 1. Species numbers of Haplotaxidae, Lumbriculidae, Naididae and Tubificidae known from different regions of China. Zoogeographical divisions of the inland sensu Zhang (1999): R1, Northeast China; R2, North China; R3, Meng-Xin; R4, Qinghai-Xizang; R5, Southwest China; R6, Central China; R7, South China.

There are 30 endemic species in inland China, among which *Limnodrilus amblysetus*, *L. paramblysetus* and *L. simplex* are only distributed in the mainstem of middle and lower Yangtze River; *Bratislavia prosetosa* is only distributed in Xinjiang. *Potamothrix scleropenis*, *P. paramoldaviensis, P. aductus*, *P. praeprostatus*, *P. parabedoti*, *P. rhytipeniatus*, *Varichaetadrilus vestibulatus*, *Aulodrilus apeniatus* and *Ilyodrilus mesoprostatus* were found only in

Yunnan lakes; *Nais badia*, *N. longidentata*, *Tubifex conicus*, *T. laxus, T. gracilentus* and *Isochaetides palmatus* were found only in the Qinghai-Xizang Plateau. The terrestrial tubificid, *Bothrioneurum grandisetosum* is only distributed in Hunan. The remaining 10 species are mainly distributed in different regions in the middle and lower reaches of the Yangtze River. The studies of marine oligochaetes in China are mainly focused on Hong Kong, Jiaozhou Bay and Hainan Island, with 63 species, 7 species and 26 species belonging 26 genera, recorded respectively. The fauna of marine oligochaetes in China seems to be special, and nearly half of the recorded species are only found in China.

Abstract of the monograph: The present volume is a part of 'Fauna Sinica' dealing with Haplotaxidae, Lumbriculidae, Naididae and Tubificidae of Microdrile Oligochaetes (Annelida: Oligochaeta) from China. The first section is the overview of Microdrile Oligochaetes, including research history, morphology, phylogenetics and classification, diversity and distributions, biology and ecology, study methods, and application values. The second section is the systematic account of 190 species belonging to 58 genera of the four families, including keys to taxa, morphological descriptions with 247 illustrations, distributions and habitats, and remarks.