

**Further Notes on the Platyhelminth Parasites Reported by
Yoshimasa Ozaki, 1923-1966, with a List of Helminth
Parasite Specimens Deposited in the Department of Zoology,
University Museum, University of Tokyo, Tokyo**

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Abstract: Yoshimasa Ozaki deposited 38 holotypes of his new species of platyhelminth parasites in the collection of the Zoological Institute, Science Faculty, Tokyo Imperial University, Tokyo. The collection has been housed in the Department of Zoology, University Museum, University of Tokyo, Tokyo. Of the holotypes that not only Ozaki but also Seitaro Goto and others had deposited in the collection of the Zoological Institute, none were found in the collection of the Department of Zoology. Information is given on two species of the genus *Umagilla* (Turbellaria) described by Ozaki and Okamoto. About 70 vials of helminth parasite specimens (monogeneans, digeneans, cestodes, nematodes, and an acanthocephalan) sought out in the collection of the Department of Zoology are listed in an appendix.

Key words: Y. Ozaki, platyhelminth parasites, holotypes, helminth parasite collection, University of Tokyo.

The late Dr. Yoshimasa Ozaki described many new species and subspecies of platyhelminth parasites as sole author or with his colleagues. Shimazu (1995) published a revised checklist and bibliography of the platyhelminth parasites that Ozaki reported from 1923 to 1966. The following are further notes supplementary to the checklist.

1) According to the checklist, Ozaki deposited 38 holotypes of new species in the collection of the Zoological Institute, Science Faculty, Tokyo Imperial University, Tokyo. The collection has been housed in the Department of Zoology, University Museum, University of Tokyo, Tokyo. We searched the collection of the Department of Zoology for the 38 holotypes in April and August 1996, but we did not find

any of the 38 holotypes in the collection, as will be seen in an appendix. In conclusion, we believe that all of Ozaki's holotypes have already been lost.

2) Ozaki and Okamoto (1944) described the following two species of parasitic turbellarians, which have been missing from the checklist. For the method of description, see Shimazu (1995). The serial numbers of hosts and reference are omitted.

Host-Parasite List

ECHINOIDEA [uni-ru]

Echinarachnius mirabilis [hasunohakashipan]

T *Umagilla setonaikaiensis* n. sp.: 1944, pp. 207-210, fig. 2, intestine, morphology and taxonomy, Oohata (Yamaguchi Pref.) [no specimen].

HOLOTHUROIDEA [namako-ru]

Leptosynapta ooplax [himoikarinamako]

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- T *Umagilla leptosynaptae* n. sp.: 1944, pp. 202-206, fig. 1, intestine, morphology and taxonomy, Hiroshima (Hiroshima Pref.) and Oohata [no specimen].

Reference

Ozaki, Y. and Okamoto, Y. (1944): [On two new species of parasitic turbellarians of the genus *Umagilla*.] Hiroshima Bunrika Daigaku Rika Kiyo, Zool., 10, 201-211. (In Japanese.)

- 3) The following errata have been found in the checklist.
- (1) p. 38, right column, lines 5-6, read "from Otaru (Hokkaido) southwards to Nagasaki" for "locality not given [Hiroshima?]."
 - (2) p. 44, right column, line 16, read "no specimen" for "19339, type series, see Machida *et al.*, 1981."
 - (3) p. 44, right column, line 31, read "69" for "70."

Acknowledgments

We thank Dr. Akira Tsukagoshi and Dr. Kazuo Sakamoto of the University Museum, University of Tokyo, Tokyo, for permitting us to examine specimens in the collection of the Department of Zoology; Dr. Masaaki Machida of the National Science Museum, Tokyo, for notifying us of the errata in the checklist; and Prof. Kiyokuni Muroga of Hiroshima University, Higashihiroshima, for providing us the photocopy of Ozaki and Okamoto's paper.

References

- 1) Shimazu, T. (1995): A revised checklist and bibliography of the platyhelminth parasites reported by Dr. Yoshimasa Ozaki, 1923-1966, and their specimens deposited in the Meguro Parasitological Museum, Tokyo. J. Nagano Pref. Coll., No. 50, 33-50.
- 2) Machida, M., Seki, N., and Yamaguchi, K. (1981): Trematodes of Steller sea lion off Hokkaido, northern Japan. Bull. Natn. Sci. Mus, Tokyo, Ser. A, 7, 147-154.

Appendix

**List of helminth parasite specimens deposited in the
Department of Zoology, University Museum,
University of Tokyo, Tokyo**

A list is given below of the helminth parasite specimens that we sought out in the collection of the Department of Zoology, University Museum, University of Tokyo, Tokyo, in April and August 1996. All of the specimens were preversed in vials. There were no specimens labeled as types. The late Prof. Seitaro Goto and others as well as Ozaki most likely deposited holotypes of their new species of helminth parasites in the collection of the Zoological Institute, Science Faculty, Tokyo Imperial University, Tokyo. However, there is little doubt that none of the holotypes have been left in the collection of the Department of Zoology. We also found several other vials containing cestodes, nematodes, etc., but they are not included in the list because they did not have any data.

Parasite species are arranged in alphabetical order of their scientific or rarely English names in their respective higher taxa, the class Monogenea, subclass Digenea, class Cestoidea, class Nematoda, and phylum Acanthocephala in this order. What the label(s) of each vial said is cited as exactly as possible. In brackets, data written in Japanese are translated into English, and some explanatory notes are added. An asterisk (*) means the presence of illegible letter(s). In the last parentheses of each parasite species, the original vial number, when present, is given, followed by our new vial number in the brackets. A minus sign (—) indicates the absence of the original vial number.

MONOGENEA

- 1) *Acanthocotyle Lo Bianchi* [sic] Monticelli, Skin of ventrum of *Raja clavata*, Exchanged by Prof. Monticelli, (7, [48]).
- 2) *Calicotyle kroyeri* [sic] Diesing, Cloaca of

Raja (various species), Exchanged by Monticelli, (8, [52]).

- 3) *Hexacotyle acuta* Goto, 1894, Gill of *Thynnus sibi*, Hagi, Nagato [Yamaguchi Pref.], Coll. Goto, Aug. 1, 1889, (17, [49]).
- 4) *Polystomum ocellatum* Rud., Mouth cavity of *Emys*, Tokyo, May 25, 1884, (53, [51]).
- 5) *Pseudocotyle squatinæ* v. Beneden et Hesse, Skin of ventrum of *Squatina angelus*, Exchanged by Prof. Monticelli, (22, [50]).
- 6) *Sphyrnanura osleri* R. Wright, Gill of *Necturus latialis*, Cambridge, Coll. S. Goto, (24, [47]).
- 7) *Tristoma biparasiticum* Goto, 1894, Carapace of a copepod on gill of *Thynnus albacora* (Kiwada-shibi), Coll. Goto, Aug. 9, 1891, (5, [46]).
- 8) *Tristoma coccineum* Cuvier, 6, (Syn. *T. rotundum* Goto), Habitat Gill of *Histiophorus* sp., (kajiki), Coll. Kuma Aoki, Aug. 1891, (—, [45]).

DIGENEA

- 1) *Clonorchis sinensis* Cobb., Liver of man, Okayama-ken, (26, [30]).
- 2) *Clonorchis sinensis* Cobb., Liver of cat, Tokyo, Dec. 12, 1885, (27, [31]).
- 3) *Clonorchis sinensis* Cobb., Liver of man, from Yoikuin, Present. by Dr. Usui, Dec. 9, 1909, (29, [32]).
- 4) *Clonorchis sinensis* Cobb., Liver of man (Ushimats [sic] Okawa, 54 aged.), Coll. in Yoikuin of Tokyo, Jun. 12, 1917, (31, [33]).
- 5) *Clonorchis sinensis* Cobb., Liver of pig, Terashima slaughter house, Tokyo, Coll. by Morishita, Nov. 30, 1920, (33, [34]).
- 6) *Clonorchis sinensis* Cobb., Liver of man, Patholog. Inst. Med. College, Tokyo Imperial Univ., (34, [35]).

- 7) *Clonorchis sinensis* Cobb., Liver of cat, Yanaizu, Suho [Yamaguchi Pref.], Aug. 1889, (35, [36]).
- 8) *Dendrocoerium lacterin**, Germany, Ijima, (—, [44]). (Possibly, this is *Dendrocoelum lacteum*, a free-living turbellarian.)
- 9) *Echinostoma gotoi*, Obtained from the albino rat giving [sic] the larva which [was] found in *Paludina*, Ando, (—, [23]).
- 10) *Echinostoma* sp., Obtained from the albino rat, Coll. by Ando, 1923, (57, [22]).
- 11) *Eurytrema pancreaticum*, 62, *Bos taurus*, Coll. Katsurada, (—, [26]).
- 12) *Fasciola gigantica* (Cobb.), Egypt, H. Kobayashi, (47, [21]).
- 13) *Fasciola magna* (Bassi) Stiles, 1894, Liver of cattle, Texas, from Mark Francis (Goto ded.), (49, [29]).
- 14) *Fasciolopsis buski* (Lank.), 149, = *Distomum crassum* Busk, Malacotylea, Trematoda, Aug. 1906, Dr. Fukuda, (—, [28]).
- 15) *Fischoederius siamensis*, [cattle, stomach], (—, [40]).
- 16) *Halipegus occidualis*, 63, *Rana nigromaculata*, Tamagawa, 1921, Morishita, (—, [24]).
- 17) *Metagonimus yokogawai* Kats., Intestine of man, Tokyo, (Icho-Byoin), 1923, (70, [43]).
- 18) *Opisthorchis felineus* Rivolta [sis], Syn. *Dist. sibilicum*, Liver(?) of man, Tomscu, Coll. by Dr. Winogradoff, 1896, Pres. by Dr. Kurimoto, (39, [41]).
- 19) *Paragonimus*, Encysted in the liver of pig, Nov. 1921, [Minowa], [Morishita], (69, [25]).
- 20) *Paragonimus westermani*, 68, Lung of pig, Minowa, 1923, Taguma, (—, [39]).
- 21) *Paragonimus westermani* Kerbert, Encysted in Lung of pig, Minowa slaughter house, Coll. K. Morishita, Nov. 1921, (36, [27]).
- 22) *Paragonimus westermani* Kerbert, Lung of pig, Minowa slaughter house, Tokyo, K. Morishita, *20, 1927, (37, [37]).
- 23) *Paragonimus westermani* Kerbert, Encysted in lung of dog, Okayama, Present. from Mr. M. Matsuzaki, May. 1898, (*, [38]).
- 24) *Schistosomum* [sic] *japonicum* Katsurada, Habit. Mesenteric veins of a cat, Loc. Yamanasiken, Coll. Tsuchiya, Sept. 1904, (44, [42]).

CESTOIDEA

- 1) *Ancistrocephalus microcephalus*, No. 1, *Ortagoriscus mola*, Misaki, 16/V, 1897, Kuma Aoki, (—, [4]).
- 2) *Anoplocephala perfoliata* (Goez.), No. 3, Intestine of horse, Tokyo (Terashima slaughter house), 27-XI, 1920, Coll. S. Taguma, (—, [10]).
- 3) *Anoplocephala perfoliata* (Goez.), No. 1, Intestine of horse, Germany (Zool. Inst. Leipzig.), Coll. Ijima, (—, [12]).
- 4) *Caryophyllaeus* sp., Intestine of Funa [*Carassius* sp.], (—, [6]).
- 5) [Cestode], Man, Tokyo City poor house, (—, [15]).
- 6) [Cestode], [*Lateolabrax japonicus*, Tokyo Market, June 2, 1919, Shigeho Tanaka], (—, [9]).
- 7) *Coenurus serialis*, 161, Merozoa, Cestoda, Hare, Atami, Prest. by Mr. *, (—, [18]).
- 8) *Cysticercus fasciolaris* Rud., Larva of *Taenia crassicolis* Rud., No. 1, Liver of Rat, Tokyo, (—, [13]).
- 9) *Cysticercus pisiformis* Zeder, Larva of *Taenia serrata* Goeze, No. 1, Viscera of hare, Atami, Prov. Izu [Shizuoka Pref.], Jan. 1889, (—, [7]).
- 10) *Cysticercus tenuicollis*, Larva of *Taenia marginata*, No. 1, Body cavity of sheep, Tokyo (Osaki), 14/II 1921, S. Taguma, (—, [16]).
- 11) *Diphyllobothrium latum* (L.), No. 1, obtained 22 days after swallowing the larva, by Ijima, April-June, 1886, (—, [1]).
- 12) *Diphyllobothrium mansonii* (Cobb.), Larva, No. 4, Thigh muscle of a frog, Tokyo, (—, [17]).
- 13) *Hymenolepis* sp., Intestine of *Corvus corone*, Tokyo, Aug. 1885, (—, [2]).

- 14) *Ligula simplissima*, No. 1, body cavity of Funa [*Carassius* sp.], Lake Suwa, X, 1911, Coll. Denzo Ushiyama, (—, [5]).
- 15) *Moniezia planissima* St. & Haso, No. 2, (—, [8]).
- 16) *Multiceps*, 2 specimens from hares shot in the neighbourhood of Atami, Pres. by K. Saiohji; a. Jan. 1889, Abdominal wall; b. Jan. 1893, Dorsal region of abdomen, (—, [3]).
- 17) *Multiceps*, Cheek muscle of hare, Tokyo, March, 1899, Coll. Yasuda, (—, [11]).
- 18) *Taenia crassicollis* Rud., 2, Stomach of a domesticated cat, Tokyo, Coll. T. Iwakawa, May 12, 1916, (—, [14]).
- 19) *Taenia crassicollis* Rud., 158, = *Cysticercus fasciolaris* Rud., Merozoa, Cestoda, Liver of rat, Tokyo, (—, [19]).
- 20) *Taenia serrata* Goeze, 159, = *Cysticercus pisiformis*, Merozoa, Cestoda, Viscera of hare, 1889, Atami, (—, [20]).
- Caused a creeping disease, male Japanese, Coll. Dr. Kinoshita, Tokyo, 1923, (—, [54]).
- 5) *Haemonchus contortus*, Fourth stomach of *Ovis aries*, Sapporo, Hokkaido, Coll. Dr. K. Ishikawa, (—, [67]).
- 6) *Heterakis maculosa* Rud. [sic], Nematoda, Intestine of *Columba livia*, 4/III 1909, (—, [65]).
- 7) *Heterakis perspicillum* (Rud.), from Egg of *Gallus gallus*, (—, [59]).
- 8) [Nematode], *Equus*, Intestine, [Seshima], 27/XI 1920, (—, [57]).
- 9) [Nematode], [Parasite of digestive tract of *Physeter catodon*, May 1916, Ayukawa, Coll. Kastuya Tago], (—, [63]).
- 10) [Nematode], [Smaller one, dog, Formosa], (—, [66]).
- 11) *Oesophagostoma* [sic] *dentatum* Rud. [sic], Intestine of pig, Taihoku, Formosa, 1924, (—, [56]).
- 12) *Oesophagostomum dentatum* (Rudolphi), Caecum of Swine, (—, [60]).
- 13) *Oxyuris vermicularis* L. [sic], ♂, Man, Tokyo (Icho-Byoin), (—, [58]).
- 14) *Spiroxys japonicus* Morishita, Duodenum of *Rana nigromaculata*, Matsuyama, Prov. Yamato [Nara Pref.], Collected by K. Morishita, 1921, (—, [55]).

NEMATODA

- 1) *Dictyocaulus filaria* (Rud.), Lung of Cattle from Korea, Tokyo, 1920, Morishita, (—, [64]).
- 2) *Diectophyme renale* (Goeze), = *Eustrongylus gigas* Diesing [sic], Nematoda, from abdominal cavity of *Mustela itatsi*, collected by Mr. Y. Ozaki [sic] at Agricultural School of Saijo, Hiroshima Prefect., Novem. 1920, (—, [61]).
- 3) *Filaria papillosa*, [Lung of horse], Minowa, Methode 3, (—, [62]).
- 4) *Gnathostoma hispidum* Fedchenko [sic],

ACANTHOCEPHALA

- 1) *Echinorhynchus* sp., Acanthocephala, Intestine of *Rana japonica* v. *martensii*, Tamagawa, Mr. Morisita, V '23, (—, [53]).