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RESEARCH NOTE

SYSTEMATIC STATUS OF *PHILOMETRA JORDANOI* (LÓPEZ-NEYRA, 1951) AND SOME OTHER CONGENERIC SPECIES PREVIOUSLY IDENTIFIED AS *PHILOMETRA LATEOLABRACIS* (YAMAGUTI, 1935) (NEMATODA: PHILOMETRIDAE)

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Abstract. The systematic status of the gonad-infecting *Philometra* species previously reported as *P. lateolabracis* (Yamaguti, 1935) from marine fishes in the Mediterranean region and off New Caledonia is evaluated with respect to the recent redescription of *P. lateolabracis* from the type host in Japan. *Philometra jordanoi* (López-Neyra, 1951) is revalidated to accommodate the nematodes from *Epinephelus marginatus*, whereas the philometrids from other European hosts (*Mycteroperca rubra* and *Seriola dumerili*), as well as those from the gonads of *Epinephelus cyanopodus* and *E. fasciatus* off New Caledonia, should be reported as *Philometra* sp. until new data are available. Also the philometrids reported as *P. lateolabracis* from *Parupeneus indicus* from off Somalia should be designated as *Philometra* sp. for the time being.

The nematode *Sanguinofilaria* (=*Philometra*) *jordanoi* López-Neyra, 1951 was described by López-Neyra (1951) from the females found in the ovary of the dusky grouper *Epinephelus gigas* [= *E. marginatus* (Lowe)] (Serranidae, Perciformes) obtained from the market in Tetuán, Morocco. Later, conspecific females were commonly found in the gonads of wild and cultured *E. marginatus* from the Mediterranean Sea (Spain, Italy, Turkey) by Moravec et al. (2003) and Moravec and Genc (2004); because the gross morphology of these nematodes seemed to be identical with that of *Philometra lateolabracis* (Yamaguti, 1935), the authors considered *P. jordanoi* a junior synonym of *P. lateolabracis*. Moravec et al. (2003) also assigned to *P. lateolabracis* the female philometrids found in the gonads of the greater amberjack *Seriola dumerili* (Risso) (Carangidae, Perciformes) from the Adriatic Sea, Croatia. Merella et al. (2004) described the male identified as *P. lateolabracis* from the gonad of *E. marginatus* from the Mediterranean Sea off Spain (Majorca) but, subsequently, they (Merella et al. 2005) used the same male specimen for a re-erection of the species *P. jordanoi*. However, Moravec and Justine (2005) considered the differences used by Merella et al. (2005) to be insufficient for taking *P. jordanoi* for a separate species and they again synonymized it with *P. lateolabracis* (see also Moravec 2006).

Philometra lateolabracis (reported as *Sanguinofilaria lateolabracis*) was established by Yamaguti (1935) solely on the basis of females found in the gonads of marine perciform fishes in Japan, belonging to three different fish families, of which *Lateolabrax japonicus* (Cuvier) (Percichthyidae) should be taken for its type host (Moravec et al. 1998). The original description of *P. lateolabracis* was inadequate. Although this parasite was subsequently reported from many other fish species of different families mainly in the tropical and subtropical regions of the Pacific, Indian and Atlantic Oceans (Moravec 2006, Quiazon et al. 2008), nearly all these records were based on female specimens, so that it could not be excluded that *P. lateolabracis* was a composite species (Moravec et al. 1998).

Only recently Quiazon et al. (2008) discovered and described the male and redescribed the female of *P. lateolabracis* from the type host (*L. japonicus*) in Japan, which, for the first time, enables to carry out a detailed comparison of this species with other related congeners parasitizing fish gonads. Although they pointed out to some morphological and biometrical differences between *P. lateolabracis* from the type host and those specimens reported from other hosts by Moravec and Genc (2004), they only stated that the nematodes reported by the latter authors probably belonged to a different species than *P. lateolabracis*. Now, after the redescription of *P. lateolabracis* by Quiazon et al. (2008), it is clear that the philometrids parasitizing the gonads of *E. marginatus* in the Mediterranean region, as described by López-Neyra (1951), Moravec et al. (2003), Moravec and Genc (2004) and Merella et al. (2004, 2005), represent an independent species *Philometra jordanoi*. It differs from *P. lateolabracis* mainly in the size and shape of the oral aperture (large, circular vs. small, triangular) and the degree of the development of the anterior oesophageal inflation (well developed vs. slightly outlined) in gravid female and in the body length (4.0 vs. 2.07–2.73 mm), the length of spicules (260 and 265 vs. 65–124 μm) and in the structure of the distal end of the gubernaculum (slender and smooth vs. with a dorsal elevation with lamellate-like structures).

Regarding the gonad-infecting *Philometra* specimens reported as *P. lateolabracis* by Moravec et al. (2003) and Moravec and Genc (2004) from *Seriola dumerili* (only females) and *Mycteroperca rubra* (Bloch) (only males and nongravid females), respectively, from the Mediterranean region, and by Moravec and Justine (2005) from *Epinephelus fasciatus* (Forsskål) and *E. cyanopodus* (Richardson) (only males and nongravid females) off New Caledonia, they also distinctly differ from *P. lateolabracis* (mainly in having a well-developed anterior oesophageal inflation and a large circular oral aperture in female, or in the absence of lamellate-like structures on the gubernaculum). However, because not both males and gravid females are known from the same host species, they should be designated as *Philometra* sp. for the time being. The same concerns the female specimens reported by Moravec et al. (1988) as *P. lateolabracis* from the gonads of *Parupeneus indicus* (Shaw) (Mullidae) from the Indian Ocean off Somalia (they mainly differ in the shape and size of the oral aperture and the presence of minute caudal projections).

With respect to the recent redescription of *P. lateolabracis* by Quiazon et al. (2008), also the previous records of this species by other authors, largely based on female morphology, can be questioned. These nematodes should be designated *Philometra* sp. until their detailed morphological study, in-

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cluding that of the male, is performed or molecular methods are utilized for their species identification (Moravec 2004). Gonad-infecting species of *Philometra* Costa, 1845 are widely distributed in marine fishes of the Atlantic, Indian and Pacific Oceans; they may cause serious damage to the fish ovaries and may thus affect fish reproduction (Moravec and Salgado-Maldonado 2007, Moravec et al. 2007). Since they frequently occur in commercial, wild or cultured fish hosts, the correct species identification of these serious parasites is very important (Moravec and de Buron 2006, Moravec et al. 2006).

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