

## Occurrence of *Dibothriocephalus latus* (syn. *Diphyllobothrium latum*) (Cestoda: Diphyllbothriidea) in selected localities in Europe

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Diphyllobothriosis is a fish-borne parasitic zoonosis caused by “broad tapeworms” or “fish tapeworms” of different genera of the order Diphyllbothriidea. Recently, polyphyletic genus *Diphyllobothrium* was divided into the genus *Diphyllobothrium* and the resurrected genus *Dibothriocephalus* with *Dibothriocephalus latus* (Linnaeus 1758) Lühe, 1899 (syn. *Diphyllobothrium latum*) as the type species. It utilizes copepods as the first intermediate hosts and freshwater fish (with infective larval stage called plerocercoid) as the second intermediate hosts. The most suitable second intermediate host of *D. latus* in Europe is European perch (*Perca fluviatilis*), while Northern pike (*Esox lucius*) serves as common paratenic host. *D. latus* plerocercoids were found also in burbot (*Lota lota*) which plays a less important role in transmitting *D. latus* to humans. Definitive hosts (fish-eating mammals, including humans) can be infected by an ingestion of plerocercoids along with fish fillets. *D. latus* is distributed in different geographic localities in Europe, in particular in the Alpine lakes region (northern Italy, Switzerland and eastern France), Russia, the Baltic region and Fennoscandia (Finland, Norway and Sweden). Besides, the sporadic occurrence was detected in Ireland, Danube River (Slovakia and Romania) and Poland. In order to assess genetic interrelationships among *D. latus* populations and to determine origin and migratory routes of individual populations of the tapeworm, several field trips were organized for the purpose of collection of plerocercoids from European perch from Switzerland (Lakes Geneva, Neuchâtel, Biel), Italy (Lakes Como, Maggiore, Iseo), Slovakia (Danube River), and Poland (Pomeranian Bay, Siemianówka Reservoir, Narewka River, Reservoir Topiło) in 2017–2018. Surprisingly, current results of the sampling do not correspond to previously published literature data and *D. latus* was not found in some of the above mentioned localities. Further ichthyoparasitological and ecological studies applying complex multidisciplinary approach are necessary in order to create the up-to-date map of *D. latus* occurrence in Europe.

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