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ON THE OCCURRENCE OF THE SOUTH RUSSIAN LAMPREY,
LAMPETRA (EUDONTOMYZON) MARIAE BERG 1931, IN THE
VISTULA BASIN

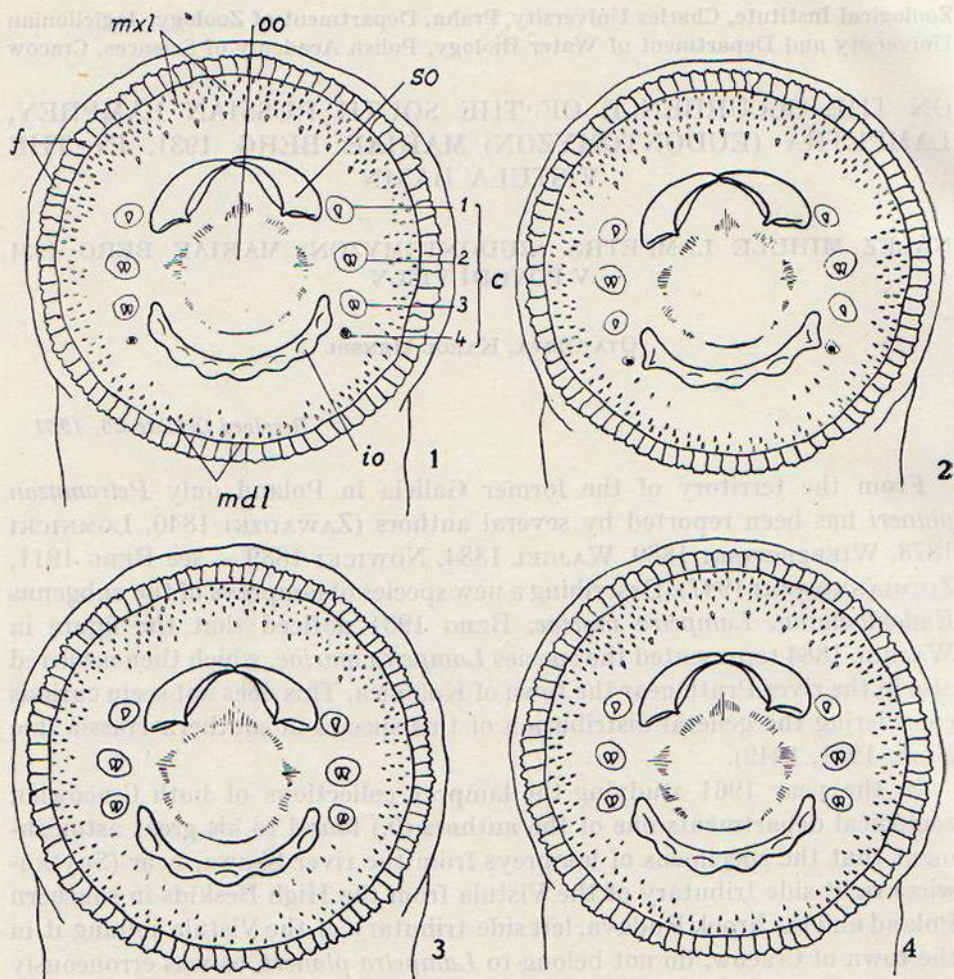
NÁLEZ MIHULE *LAMPETRA (EUDONTOMYZON) MARIAE* BERG 1931
V POVODÍ VISLY

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From the territory of the former Galicia in Poland only *Petromyzon planeri* has been reported by several authors (ZAWADZKI 1840, LOMNICKI 1878, WIERZBOWSKI 1880, WAJGEL 1884, NOWICKI 1889 — see BERG 1911, ZIEMIANKOWSKI 1947). Describing a new species of lampreys of the subgenus *Eudontomyzon*, *Lampetra mariae*, BERG 1931 noticed that the figure in WAJGEL 1884 represented the species *Lampetra mariae*, which then occurred also in the river Pruth near the town of Kolomea. This does not seem curious considering the general distribution of this species in southern Russia (see BERG 1931, 1949).

In the year 1961 studying the lamprey collections of both Cracowian zoological departments one of the authors (O.) found to his great astonishment that the specimens of lampreys from the river Skawa, near (Spytkowice) right side tributary of the Vistula from the High Beskids in southern Poland and the brook Rudava, left side tributary of the Vistula joining it in the town of Cracow, do not belong to *Lampetra planeri*, as was erroneously determined by an unknown author on the locality cards, but to the species *Lampetra mariae*. Thus the species is reported for the first time from Poland being found in the Vistula basin belonging to the Baltic. Most interesting is also one documentary specimen of lamprey from the tributary of Pruth, Lipa Złota. This specimen shows that BERG 1931 was right in determining his specimen shows that BERG 1931 was right in determining the lamprey species from the Pruth near Kolomea as *Lampetra mariae*. His judgement was based only on the figure in WAJGEL 1884. The above-mentioned documentary specimen, unfortunately in a poor condition, belongs probably to the fish collection of Professor NOWICKI of Cracow and



Lampetra mariae. Fig. 1 specimen from Rudawa, No. 1 of coll.; Fig. 2 *ibid.* No. 2; Fig. 3 *ibid.* No. 3; Fig. 4 *ibid.* No. 4

Semischematic drawing, the explanations combined from BERG (1949) and VLADYKOV and FOLLET (1958):

- c — four circumorals or enlarged laterals
- f — oral fimbriae
- io — infraoral lamina with infraoral cusps
- oo — oesophageal opening
- md — mandibular labials or rows of "villiform" teeth of the posterior field of mouth disc
- mdl — maxillary labials or rows of "villiform" teeth of the anterior (upper) field of mouth disc

was collected in the second half of the 19th century. It possesses all characters of *Lampetra mariae*.

The variability of dentition of all examined species is shown in tables 1 and 2.

Table 1. — Dentition of South Russian Lampreys from the river Skawa

No. Coll.	8	5	7	9	2	4	3	6
No. of cusps on infraor. lamina	5	5	5	5	5	6	6	6
no. of cusps on circumorals	1	1	1	1	1	1	2	1
	2	2	2	2	2	2	2	- +)
	1	2	2	2	2	1	2	1
				(2)				

†) the cusps were damaged in this sp.

Table 2. — Dentition of South Russian Lampreys from the brook Rudawa.

No. Coll.	2	3	4	5	1
No. of cusps on infraor. lamina	5	5	6	6	7
no. of cusps on circumorals	1	1	1	1	1
	2	2	2	2	2
	1	2	2	2	2
	(2)				(1)

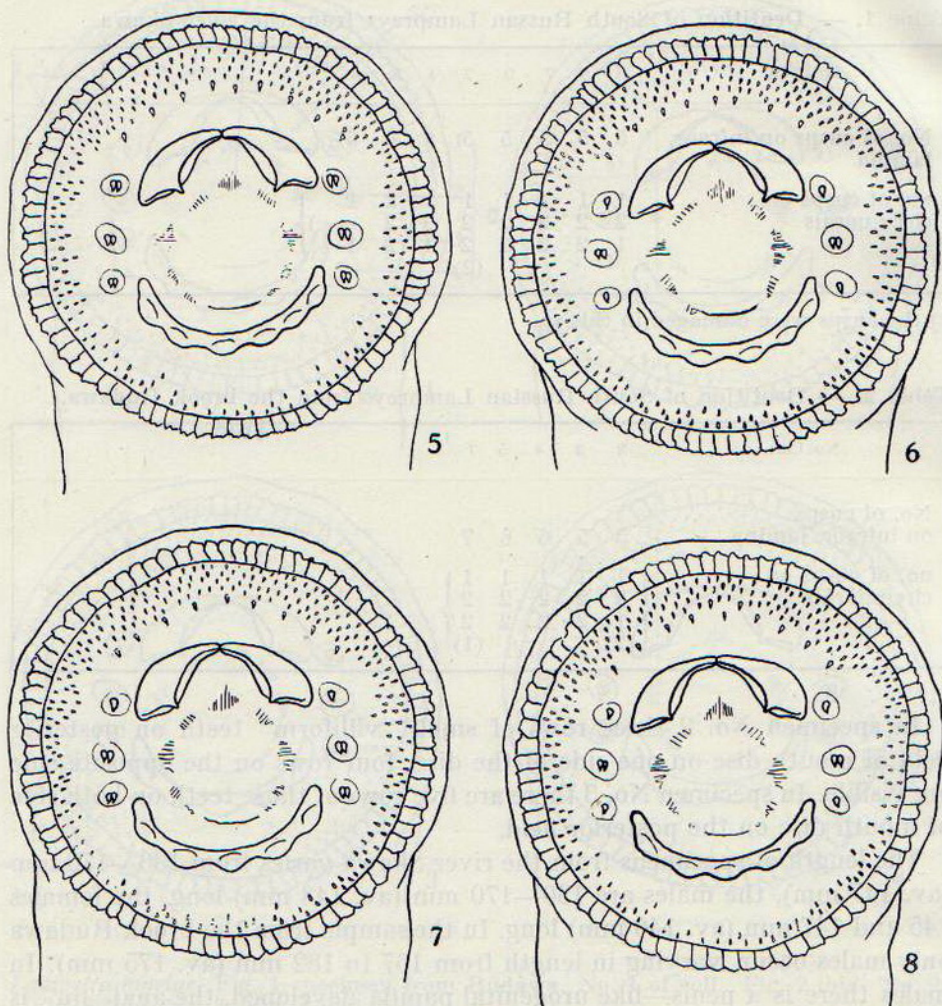
In specimen No. 2 three rows of small "villiform" teeth on posterior field of mouth disc on one side of the disc, four rows on the opposite side are visible. In specimen No. 3 there are five rows of those teeth on both side of mouth disc on the posterior field.

The length of specimens from the river Skawa varies from 130—170 mm (av. 147 mm), the males are 130—170 mm (av. 148 mm) long, the females 145 and 147 mm (av. 146 mm) long. In the sample from the brook Rudawa only males occur, varying in length from 167 to 182 mm (av. 175 mm). In males there is a penis—like urogenital papilla developed, the anal "fin" is lacking, but this fin is well developed in females, similarly as it is common in *Lampetra planeri*.

DISCUSSION

The find of the South Russian Lamprey, *Lampetra (Eudontomyzon) mariae* in the Vistula river drainage is a very curious fact, so far not reported by any ichthyologist. The related species, *Lampetra (Eudontomyzon) morii*

BERG 1931 lives in the Upper Yalu River in Manchuria, probably also in the river Liao-ho and in Korea. The discontinuous distribution of both species of lampreys of the subgenus *Eudontomyzon* was explained by BERG (1931) either as relics of former continuous distribution, or the "European



Lampetra mariae. Fig. 5 specimen from river Skawa No. 3; Fig. 6 *ibid.* No. 4; Fig. 7 *ibid.* No. 5; Fig. 8 *ibid.* No. 8.

and Manchurian species arose independently, polytopically, in the West and in the East, from a similar lamprey type, e. g. in the West from *L. fluviatilis*, in the East from *L. japonica*" (sec. BERG, 1931, 97). Probably also lampreys, reported by Żarnecki and Kolder (1956) from the uppermost

("Silesian") part of the river Vistula belong to the species *Lampetra mariae*, similarly as some of Vistula specimens of lamprey of WALECKI (1864). STAFF (1950) confirmed the data of BERG (1931) concerning the distribution of *Lampetra mariae*. The third species of the subgenus *Eudontomyzon*, *L. danfordi* (REGAN) occurs in rives of Danubian drainage.

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SOUHRN

Autoři zjistili při studiu mihulí z řeky Skawy a potoka Rudawy, přítoků horní Visly, že tyto mihule nepatří k druhu *Lampetra planeri*, jak byly určeny a jak bylo možno na základě dosavadních znalostí očekávat, nýbrž k druhu *Lampetra (Eudontomyzon) mariae* BERG 1931. Do této doby byl posledně jmenovaný druh znám výlučně jen z povodí Černého moře z Ukrajiny. Připojené obrázky ústních terčů ukazují proměnlivost uložení zoubků. Současně se podařilo nalézt ve sbírkách Ústavu pro biologii vod Polské Akademie Věd v Krakově dokladový exemplář mihule z přítoku řeky Prutu, Zlaté Lípy (Lipa Złota), jenž patří též k druhu *Lampetra mariae*. Takto bylo možno potvrdit domněnku BERGA (1931), že Wajgelův obrázek mihule potoční z Prutu (1884) nepředstavuje tento druh, nýbrž druh *Lampetra mariae*.

Naše nálezy jsou prvním dokladem o výskytu *Lampetra mariae* v úmoří Baltického moře. Nejbližší příbuzný druh, *Lampetra (Eudontomyzon) morii* žije v Mandžusku (horní tok řeky Yalu), třetí zástupce podrodu *Eudontomyzon*, *Lampetra danfordi* (REGAN) žije v povodí Dunaje.

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