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Annotated catalogue of the type specimens of salmon, cod and cottoid fishes described by Dmitry Taliev

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ABSTRACT

The article provides a brief biography of the ichthyologist Dmitry Nikolayevich Taliev (1908–1952), as well as information and illustrations for 24 taxa described by him from the White Sea (Gadidae – one subspecies), the coast of the Sea of Okhotsk (Salmonidae – one subspecies), Lake Baikal (Cottidae – 2 species and 4 subspecies; Abyssocottidae – 6 species and 8 subspecies), and Lake Baunt (Cottidae – 1 subspecies; Abyssocottidae – 1 species). For 19 taxa, photographs and radiographs of type specimens kept in the collection of the Zoological Institute of the Russian Academy of Sciences (Saint Petersburg, Russia) are presented for the first time. Type specimens of three species and two subspecies from the families Cottidae and Abyssocottidae found in the collection are examined and catalogued. It was revealed that *Cottus kessleri bauntovi* Taliev, 1946 and *Limnocottus kozovi* Taliev, 1946 are morphologically similar to *Cottus sibiricus*, a species widely distributed in Siberia, including Lake Baunt. According to modern fish taxonomy, Taliev's 12 taxa are valid. Findings of type specimens in the historical collection are extremely important for the scientific community.

Key words: cottoid fishes, D.N. Taliev, historical collections, type specimens, Zoological Institute RAS

Аннотированный каталог типовых экземпляров лососевых, тресковых и коттоидных рыб, описанных Дмитрием Талиевым

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РЕЗЮМЕ

В статье приведены краткие сведения о биографии ихтиолога Дмитрия Николаевича Талиева (1908–1952), а также представлена информация и иллюстрации для 24 таксонов рыб, описанных им из Белого моря (Gadidae – один подвид), побережья Охотского моря (Salmonidae – один подвид), озера Байкал (Cottidae – 2 вида и 4 подвида, Abyssocottidae – 6 видов и 8 подвидов) и озера Баунт (Cottidae – 1 подвид, Abyssocottidae – 1 вид). Для 19 таксонов впервые представлены фотографии и рентгенограммы типовых экземпляров, хранящихся в коллекции Зоологического института РАН (Санкт-Петербург). Типовые экземпляры 3 видов и 2 подвидов из семейств Cottidae и Abyssocottidae, обнаруженные в коллекционном фонде, исследованы и занесены в каталог. Выявлено, что *Cottus kessleri bauntovi* Taliev, 1946

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и *Limnocottus kozovi* Taliev, 1946 морфологически сходны с *Cottus sibiricus* – широко распространенным в Сибири (включая озеро Баунт) видом. Согласно современной системе рыб, 12 таксонов Талиева являются валидными. Находки типовых образцов в исторической коллекции чрезвычайно важны для научного сообщества.

Ключевые слова: коттоидные рыбы, Д.Н. Талиев, исторические коллекции, типовые экземпляры, Зоологический институт РАН

INTRODUCTION

Dmitry Nikolaevich Taliev (1908–1952) is a Russian ichthyologist, who described 24 taxa of fish, including 9 species and 15 subspecies. He began his research as a student under the guidance of K.M. Deryugin, Professor of Leningrad State University. During training practice on the White Sea, Taliev studied the White Sea cod and described a new subspecies *Gadus callarias hiemalis* Taliev, 1931. After graduating from Leningrad State University, D.N. Taliev continued to study fish in the coastal regions of the Sea of Okhotsk and lower reaches of Amur River. As a result of investigating the genus *Oncorhynchus*, a new subspecies *O. nerka ovetsch* Taliev, 1932 was described. In the same year, D.N. Taliev (Fig. 1) relocated to Lake Baikal and continued research at the Baikal Limnological Station of the USSR Academy of Sciences (BLS). He began to study samples of cottoid fish collected by the BLS during expeditions in 1930 to 1932. By that time, the study of the Baikal Cottoidei had a long history. It was started in 1772 by P.S. Pallas, who described the endemic oil fish *Callionymus* (current name *Comephorus*) *baikalensis* Pallas, 1776. Later, the study of Baikal sculpins was continued by B. Dybowski (1874, 1876) and L.S. Berg (1900, 1906, 1907), who described 13 new species of Baikal sculpins, 6 and 7 species, respectively. By the time of Taliev, 17 species from 9 genera of Baikal sculpins were known.

At the BLS, D.N. Taliev worked as a scientist and then director for almost 20 years (1932–1952), with a break from April 1939 to February 1942. After the invitation of the Director of the Zoological Institute (ZIN) of the USSR Academy of Sciences, Academician S.A. Zernov, Taliev transferred to Leningrad. He was invited to ZIN to organize a laboratory of experimental systematics (Archive of the Zoological Institute of the Russian Academy of Sciences, fund 1, inventory 3, file D104). All plans were destroyed by the Great Patriotic War and the Siege of Leningrad. In 1941, Taliev was on duty upon the roof of the Zoological Institute building to extinguish incendiary bombs. Together with other ichthyologists, he transferred fish collections from the storage located on the second floor of the institute to the basement. In the basement there were rooms of the ichthyological laboratory, in which the collections of fish were preserved and were not damaged by the bombing. The old collections of fish samples are still stored in these rooms. They were collected and preserved by ichthyologists at the institute, including Taliev. In the early years of the war, on behalf of Academician E.N. Pavlovsky, Taliev participated in preparations of kits for the disinfection of wounds. Taliev and his sister were evacuated from Leningrad in February 1942. He returned to Lake Baikal and continued his study of cottoid fish. In 1952, D.N. Taliev brought the results of many years of research to Zoological Institute.

Fig. 1. Portrait of Dmitry Nikolayevich Taliev (1908–1952).

Table 1. Species and subspecies described by D.N. Taliev.

	Name of Taliev's species or subspecies	Current taxonomic status
	Family Salmonidae	
1.	*Oncorhynchus nerka ovetsch*	Synonym of *Oncorhynchus nerka*
	Family Gadidae	
2.	*Gadus callarias hiemalis*	Synonym of *Gadus morhua*
	Family Cottidae	
3.	*Batrachocottus baicalensis pachytus*	Synonym of *Batrachocottus baicalensis*
4.	*Batrachocottus uschkan*i	Synonym of *Batrachocottus baicalensis*
5.	*Cottocomephorus grewingki alexandrae*	Valid as *Cottocomephorus alexandrae*
6.	*Paracottus kessleri bauntovi*	Synonym of *Cottus sibiricus*
7.	*Paracottus kessleri lubricus*	Synonym of *Leocottus kesslerii*
8.	*Paracottus pelagicus*	Synonym of *Leocottus kesslerii*
9.	*Paracottus insularis*	Valid as *Paracottus insularis*
	Family Abyssocottidae	
10.	*Abyssocottus elochini*	Valid as *Abyssocottus elochini*
11.	*Abyssocottus godlewskii griseus*	Valid as *Limnocottus griseus*
12.	*Abyssocottus pallidus*	Valid as *Limnocottus pallidus*
13.	*Asprocottus herzensteini abyssalis*	Valid as *Asprocottus abyssalis*
14.	*Asprocottus herzensteini intermedius*	Synonym of *Asprocottus herzensteini*
15.	*Asprocottus herzensteini parmiferus*	Valid as *Asprocottus parmiferus*
16.	*Asprocottus herzensteini platycephalus*	Valid as *Asprocottus platycephalus*
17.	*Asprocottus megalops eurystomus*	Valid as *Cyphocottus eurystomus*
18.	*Asprocottus pulcher*	Valid as *Asprocottus pulcher*
19.	*Cottinella werestschagini*	Valid as *Neocottus werestschagini*
20.	*Limnocottus bergianus*	Valid as *Limnocottus bergianus*
21.	*Limnocottuss kozovi*	Synonym of *Cottus sibiricus*
22.	*Metacottus gurwici*	Valid as *Procottus gurwici*
23.	*Procottus jeittelesi major*	Valid as *Procottus major*
24.	*Procottus jeittelesi minor*	Synonym of *Procottus gurwici*

He wanted to publish a monograph on cottoid fish of Lake Baikal. However, he was unable to do so. In a Leningrad hospital, he was diagnosed with cancer. In a serious condition, he moved in with his father in Kiev, where D.N. Taliev died at the age of 42.

The generalized results of Taliev's research were published after his sudden death. The manuscript was prepared for printing by his wife A.A. Bazikalova. The preface to the monograph "Sculpins of Lake Baikal (Cottoidei)" was written by Head of the Laboratory of Ichthyology of the Zoological Institute, corresponding member of the USSR Academy of Sciences A.N. Svetovidov. Taliev's work was published in 1955. The information given in this monograph is still relevant up to the present day. Samples of sculpins collected and donated by Taliev to ZIN are stored in the ichthyological collection of the institute. A small part of the fish collected by Taliev is kept in the collection of the Baikal Museum of the Siberian Branch of RAS in the village Listvyanka, Irkutsk Region. Unfortunately, the type specimens of many taxa have been lost. They probably disappeared in 1961, during the transfer of the Baikal Limnological Station to a new building. For a long time, one of the authors of this article (V. Sideleva) unsuccessfully tried to find type specimens at the Limnological Institute of the Siberian Branch of RAS and the Zoological Museum in Kiev. But, in 1980, holotypes of two species (*Metacottus qurwici* and *Abyssocottus elochini*) were found at the Limnological Institute. They were transferred to the ichthyological collection of ZIN. Some of the type specimens were found in the collection of ZIN; they were handed over by E.A. Koryakov. He was Taliev's assistant from 1946 to 1952. Koryakov donated type specimens of two subspecies and two species: *Cottus kessleri bauntovi*,

Paracottus (*Leocottus*) *kessleri lubricus*, *Paracottus* (*Leocottus*) *pelagicus* and *Limnocottus kozovi*. Of these, *C. kessleri bauntovi*, *P.* (*L.*) *kessleri lubricus*, *P.* (*L.*) *pelagicus* were found only in 2022. Koryakov supplied all specimens with labels confirming their type status.

According to the modern fish system, out of 24 taxa described by D.N. Taliev, 12 species (1 species from family Cottidae and 11 species from family Abyssocottidae) are valid (Table 1).

It should be noted that one species and two subspecies described by Taliev were not still recaptured, despite the 30-year sampling of cottoids in the Lake Baikal. However, the data and the illustrations for these species and subspecies are also presented in the publication.

The aim of this article is to present data about type specimens of all species and subspecies described by D.N. Taliev. Photographs, radiographs, information about diagnostic and meristic characters, as well as the type locality are given for all taxa. For one species and two subspecies not collected in Lake Baikal, drawings from Taliev's original descriptions are presented as an illustrative material. However, information about these species and subspecies are also presented.

MATERIAL AND METHODS

More than 100 specimens of fish kept in the fund collection of the ZIN have been studied. All samples are stored in 70% ethanol. For type specimens of each Taliev's species and subspecies, photographs and radiographs were taken. To obtain digital images of the skeleton, an X-ray unit of the Core Facilities Centre "Taxon" (ZIN) was used.

The names of species and subspecies correspond to the original descriptions by D.N. Taliev. For each species or subspecies, the following information is given: scientific name; collection number (ZIN); locality; date of sampling; name of the collector; current status; the most important diagnostic characters from the first description. The number of fin rays, gill rakers, vertebrae and pores in the trunk canal of the lateral line system are provided. All data, including the type locality, are taken from Taliev's original descriptions.

The following abbreviations are used: *D*1 – the number of spines in the first dorsal fin; *D*2 – the number of rays in the second dorsal fin; *A*, *C*, *P*, *V* —anal, caudal, pectoral and ventral fins or the number of rays in them; *sp. br.* – the number of gill rakers on the first gill arch; *vert.* – the total number of vertebrae; *CLL* – the number of pores in the trunk (lateral) canal of the lateral line system; *SL* – standard length; *TL* – total length.

RESULTS

1. Family Salmonidae

***Oncorhynchus nerka ovetsch* Taliev, 1932**

(Fig. 2)

Fig. 2. *Oncorhynchus nerka ovetsch* Taliev, 1932, ZIN 30672, holotype.

Types. Described from one specimen.

ZIN 30672, holotype, *SL* 639 mm, the Tonon River, tributary of the Ola River [Sea of Okhotsk Basin], September 19, 1930, collector D.N. Taliev.

Current status. Synonym of *Oncorhynchus nerka* (Walbaum, 1792) (Berg 1948).

Diagnostic characters. The subspecies *O. nerka ovetsch* differs from *O. nerka* in a large number of pyloric caeca (116 vs. 88–90); the number of scales on the caudal peduncle (23 vs. 28); the number of branched rays in the anal (12 vs. 14 or more) and dorsal fins (3 simple and 11 branched vs. 4–5 simple and 9–10 branched); base length of *D* (13.7 % vs. 10.7 % *SL*), as well as the absence of dark spots in the body coloration (Taliev 1932).

Counts. *D* with 3 simple and 11 branched rays, *A* 3+12, *P* 1+16, *V* 2+10 (Taliev 1932).

Type locality. The Tonon River, a tributary of the Ola River (coast of the Sea of Okhotsk).

Remarks. This specimen is labelled by Taliev as a type ("Typus").

2. Family Gadidae

***Gadus callarias hiemalis* Taliev, 1931**

(Fig. 3)

Types. The number of type specimens was not indicated by Taliev.

Fig. 3. *Gadus callarias hiemalis* Taliev, 1931, ZIN 24507, syntype, photo (A) and radiograph (B).

ZIN 24507, syntypes (7), *SL* 218–262 mm, White Sea, Kandalaksha Gulf, September 10, 1929, collector D.N. Taliev.

Current status. Synonym of *Gadus morhua* Linnaeus, 1758 (Berg 1949).

Diagnostic characters. The trunk canal of the lateral line system is straight; narrow interorbital space; *D*1 is relatively close to the head and starts on the vertical of the first rays of *P*; pale coloration of the body, spots are present only on the dorsal part of the body (Taliev 1931).

Counts. *D*1 12–16, *D*2 17–22, *D*3 15–20, *A*1 16–22, *A*2 15–20 (Taliev 1931); *D*1 12, *D*2 18, *D*3 18, *A*1 18, *A*2 17, *vert*. 53 (radiograph).

Type locality. White Sea, Valas-Ruchey Bay near Kandalaksha.

Remarks. These specimens were labelled by Taliev as *Gadus callarias hiemalis*.

3. Family Cottidae

Batrachocottus baicalensis pachytus Taliev, 1955

(Fig. 4)

Types. Described from one specimen.

The holotype was lost during the Second World War (Taliev 1955).

Current status. Synonym of *Batrachocottus baicalensis* (Dybowski, 1874) (Sideleva 1982).

Diagnostic characters. It differs from the type species *B. baicalensis* in a number of characters: the shape of the pectoral fins, the reduction of the spine on the preoperculum, the increase of postdorsal distance, the greater body height, the length of the caudal peduncle, height and width of head, and length and width of the maxillary bone. The length of the pectoral and ventral fins, as well as the length of the head, is less than in *B. baicalensis* (Taliev 1955).

Counts. *D*1 7, *D*2 16, *A* 12, *P* 15, *V* I 3, *CLL* 12 (Taliev 1955).

Type locality. South Baikal, opposite the village Bol'shie Koty, depth 180–220 m.

Remarks. The collection of ZIN contains three individuals (ZIN 51314) sampled from the type locality of *B. baicalensis pachytus* (village Bol'shie Koty, depth 80–120 m, June 11, 1994, collector V. Ostroumov). These specimens can be designated as topotypes. *Batrachocottus baicalensis pachytus* was synonymized with *B. baicalensis* as a result of taxonomic revision of Baikalian Cottoidei (Sideleva 1982).

Batrachocottus uschkani Taliev, 1955

(Fig. 5)

Types. The number of type specimens was not indicated by Taliev.

Not found.

Current status. Synonym of *Batrachocottus baicalensis* (Dybowski, 1874) (Sideleva 1982).

Diagnostic characters. *Batrachocottus uschkani* differs from *B. baicalensis* in having fewer vertebrae. The trunk canal of the lateral line is longer and has smaller pores. *Batrachocottus uschkani* has

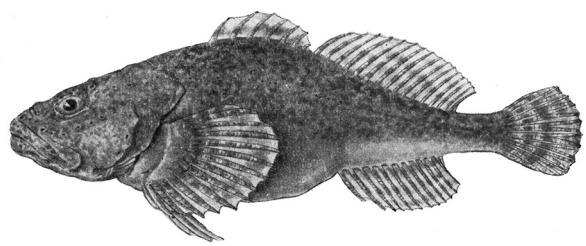

Fig. 4. *Batrachocottus baicalensis pachytus* Taliev, 1955, picture from Taliev (1955).

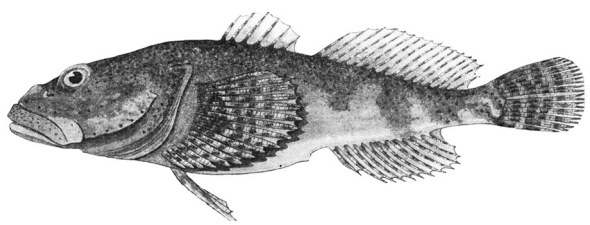

Fig. 5. *Batrachocottus uschkani* Taliev, 1955, picture from Taliev (1955).

a prominent snout (a protruding infraorbital bone with a swollen head of the ethmoideum) and a shorter lower jaw (Taliev 1955).

Counts. *D*1 6–7, *D*2 15–16, *A* 11–13, *P* 15–16, *V* I 3, *CLL* 12–18, *sp. br.* 5–6, *vert.* 32–33 (Taliev 1955).

Type locality. Baikal, the littoral of Ushkany Islands, depth 10–14 m.

Remarks. There are no specimens of *B. baicalensis* from the littoral of Ushkany Islands in the collection of ZIN. *Batrachocottus uschkani* was synonymized with *B. baicalensis* as a result of taxonomic revision of Baikalian Cottoidei (Sideleva 1982).

Cottocomephorus grewingki alexandrae Taliev, 1935

(Fig. 6)

Types. Described from seven specimens.

ZIN 36608, neotype, *SL* 142 mm, Lake Baikal, 1949, collector A.Ya. Bazikalova, designated by Sideleva (1996).

Taliev's specimens: ZIN 33812, two specimens, Lake Baikal, 10 km from the mouth of Selenga River, March 22, 1907, collector A. Eryomin; det. D. Taliev.

Current status. Valid as *Cottocomephorus alexandrae* Taliev, 1935 (Sideleva 2001).

Diagnostic characters. The body is elongated. There are small prickles under the pectoral fins. The spines on the praeoperculum are reduced and hidden in the skin. The trunk canal of the lateral line system reaches the vertical of the posterior half of the *D*1. Back and upper part of the head has no spots; belly and sides are mother-of-pearl-silvery. On the pectoral fins, there are weak transverse stripes (no more than 6). The length of males is up to 170 mm; the length of females is up to 160 mm; specimens 120–130 mm long are usually caught. In the original description, the length of the type specimen is 102 mm (Taliev 1935).

Counts. *D*1 (7) 8–9, *D*2 17–19 (20), *A* 20–22, *P* 18–21, *V* I 4, *CLL* 10–20, *sp. br.* (16)18–20, *vert.* 39–40 (Taliev 1935); *D*1 8, *D*2 18, *A* 21, *vert.* 39 (radiograph).

Type locality. Lake Baikal, northern part, without mention of the exact location (Taliev 1935).

Remarks. Two Taliev's specimens (ZIN 33812) are not syntypes because they were sampled in the central (or middle) part of Baikal, and they do not correspond to the description. The morphology of a single specimen (ZIN 36608) collected by Bazikalova in 1949 fully corresponds to the original description. This individual was designated as a neotype (Sideleva 1996), and then was erroneously listed as a lectotype (Sideleva 2003).

Cottus kessleri bauntovi Taliev, 1946

(Fig. 7)

Types. Described from three specimens.

ZIN 56983, syntypes (2), *SL* 53.0 and 58.3 mm, Lake Baunt, Vitim River system, July 1939, collector F.B. Muhomediyarov.

Current status. Synonym of *Cottus sibiricus* Warpachowski, 1889 (identified by V.G. Sideleva in 2023 after studying morphological characters of two syntypes).

Diagnostic characters. Parapophyses appear on the sixth vertebra; they are shorter than those of the typical *L. kesslerii*. The body is completely naked. The trunk canal of the lateral line system reaches the

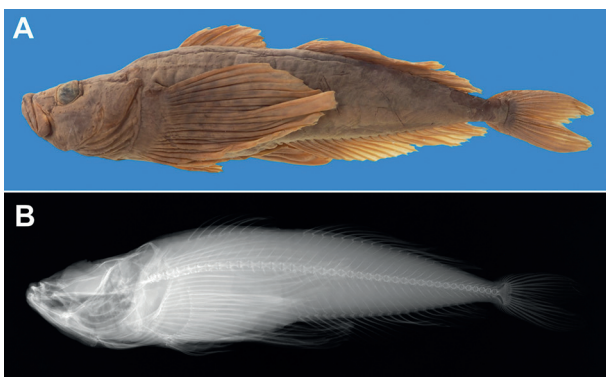

Fig. 6. *Cottocomephorus grewingki alexandrae* Taliev, 1935, ZIN 36608, neotype, male, photo (A) and radiograph (B).

Fig. 7. *Cottus kessleri bauntovi* Taliev, 1946, ZIN 56983, syntype SL 58.3 mm, photo (A) and radiogr aph (B).

caudal fin. There are irregular dark spots on the body; they are grouped into 4 transverse stripes (Taliev 1946).

Counts. *D*1 6–7, *D*2 19, *A* 18–20, *P* 16–17, *V* I 4, *CLL* 39–40, *vert*. 37–38 (Taliev 1946); *D*1 7, *D*2 18, *A* 20, *vert*. 37 (radiograph).

Type locality. Lake Baunt, Vitim River system (Taliev 1946).

Remarks. Except two syntypes stored in ZIN, one specimen was left in the Limnological Institute, Siberian Branch of RAS. The presence and preservation of this syntype is unknown.

Paracottus insularis Taliev, 1955

(Fig. 8)

Types. The number of type specimens was not indicated by Taliev.

ZIN 56981, neotype, *SL* 73.8 mm, Lake Baikal, the littoral of the Big Ushkany Island, Peshcherka Bay, August 12, 2020, collector N.S. Mugue, designated in this study.

Current status. Valid as *Paracottus insularis* Taliev, 1955.

Diagnostic characters. The upper spine on the praeoperculum is strong. The trunk canal of the lateral line system extends above the middle line of the body and ends on the vertical of the first rays of *D*2. The pores of the trunk canal are quite large. The pelvic fins are spatulate, long, not reaching the anus; fifth inner ray is nearly as long as the fourth. The eyes are slightly tubular. Mouth lips are not fleshy. The body under the pectoral fins is covered with numerous coarse prickles. The interbranchial width is wide. There is a black spot at the end of *D*1 (Taliev 1955).

Counts. *D*1 6–7, *D*2 17–18, *A* 14–15, *P* 17–18, *V* I, 4, *CLL* 15–18, *sp. br.* 4–6, *vert*. 34–35 (Taliev 1955); *D*1 8, *D*2 17, *A* 14, *vert*. 34 (radiograph).

Type locality. Lake Baikal, the littoral zone of the Peshcherka Bay of the Big Ushkany Island.

Remarks. The taxon was considered for a long time as a synonym of *P. knerii* (Sideleva 1982) because the types were lost. Specimens corresponding to the description have not been sampled until recently. Only in 2020, individuals of this species were sampled in littoral of the Big Ushkany Island by an expedition of N.S. Mugue. Morphology of this specimen corresponds to the Taliev' description, and thus it was designated as a neotype of the species.

Paracottus (*Leocottus*) *kessleri lubricus* Taliev, 1955

(Fig. 9)

Types. Described from two specimens.

ZIN 56982, syntypes (2), *SL* 95.0 and 98.3 mm, South Baikal, opposite the town of Slyudyanka, station 3, depth 50 m, net, April 20, 1944, collector BLS.

Current status. Synonym of *Leocottus kesslerii* (Dybowski, 1874) (Sideleva 2003).

Diagnostic characters. The subspecies differs from *Paracottus* (*Leocottus*) *kessleri* in a large number of vertebrae, wider interorbital space, reduction of spines on the praeoperculum and prickles on the body, decrease in the number of pores in the trunk canal, decrease in the length of the pelvic fins, increase

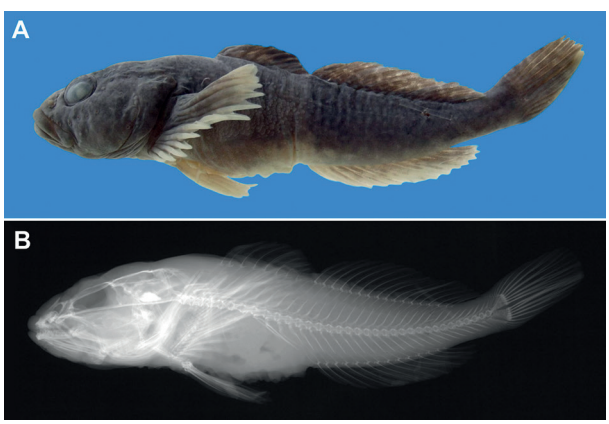

Fig. 8. *Paracottus insularis* Taliev, 1955, ZIN 56981, neotype, photo (A) and radiograph (B).

Fig. 9. *Paracottus* (*Leocottus*) *kessleri lubricus* Taliev, 1955, ZIN 56982, syntype *SL* 98.3 mm, photo (A) and radiograph (B).

in the length of the pectoral fins and the diameter of the eye (Taliev 1955).

Counts. *D*1 7–9, *D*2 18–20, *A* 21–22, *P* 17–19, *V* I 4, *CLL* 28–36, *sp. br.* 5–6, *vert.* 39–40 (Taliev 1955); *D*1 8, *D*2 18, *A* 20, *vert.* 39 (radiograph).

Type locality. South Baikal, area of Slyudyanka, depth 50 m (Taliev 1955).

Remarks. E.A. Koryakov labelled these two specimens as types of the subspecies *P.* (*L.*) *kessleri lubricus*. The location, depth, date, number of specimens and length coincide with the original description by Taliev (1955).

Paracottus (*Leocottus*) *pelagicus* Taliev, 1955

(Fig. 10)

Types. Described from two specimens.

ZIN 46237, syntypes (2), *SL* 123.3 and 129.6 mm, South Baikal, opposite the town of Slyudyanka, June 6, 1944.

Current status. Synonym of *Leocottus kesslerii* (Dybowski, 1874) (Sideleva 2003).

Diagnostic characters. It differs from *Paracottus* (*Leocottus*) *kessleri* in a smaller number of pores in the trunk canal of the lateral line; large number of gill rakers; weak development of spines on the praeoperculum; absence of ridges on the surface of the head and prickles on the body. According to morphometric features, the differences are expressed in an increase of the height of head and body; increase of the base length of *D*1 and *A* (Taliev 1955).

Counts. *D*1 7–9, *D*2 19–20, *A* 21–22, *P* 17–18, *V* I 4, *CLL* 23–26, *sp. br.* 8–10, *vert.* 39 (Taliev 1955); *D*1 9, *D*2 18, *A* 21, *vert.* 39 (radiograph).

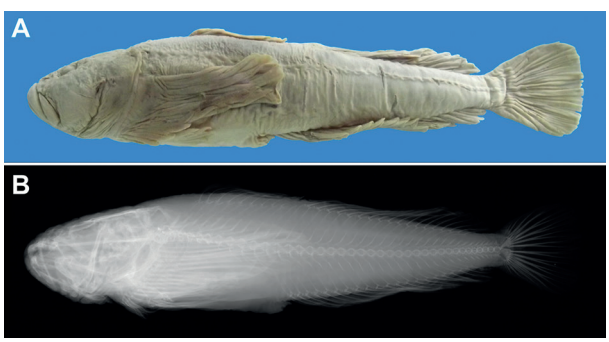

Fig. 10. *Paracottus* (*Leocottus*) *pelagicus* Taliev, 1955, ZIN 46237, syntype *SL* 129.6 mm, photo (A) and radiograph (B).

Type locality. South Baikal, near the town Slyudyanka, depth 7 m.

Remarks. According to the Koryakov's label, these two specimens are the types of *P.* (*L.*) *pelagicus*. Location, depth, date, number of specimens coincide with the original description by D.N. Taliev (1955).

4. Family Abyssocottidae

Abyssocottus elochini Taliev, 1955

(Fig. 11)

Types. Described from one specimen.

ZIN 46661, holotype, *SL* 64.2 mm, North Baikal, 2 km south of Cape Elokhin, depth 290 m, September 17, 1951, collector E.A. Koryakov.

Current status. Valid as *Abyssocottus elochini* Taliev, 1955.

Diagnostic characters. The body is elongated with a straight dorsal profile. The snout is wide, spade-shaped; it has a bump in the anterior part. The eyes are small and do not occupy the entire orbit. The neuromasts of the lateral line system on the head and trunk sit on light dermal papillae. The body is devoid of prickles and covered with delicate, folded skin. The interbranchial space is very narrow. The dorsal fins touch each other. The pelvic fins are rather long, almost reaching the anus; their inner ray is somewhat longer than the other three. The pectoral, dorsal and caudal fins have dark brown transverse stripes. The length is up to 77 mm (Taliev 1955).

Counts. *D*1 4–5, *D*2 14–15, *A* 12–13, *P* 17–18, *V* I 3, *sp. br.* 5–6, *vert.* 32 (Taliev 1955); *D*1 5, *D*2 15, *A* 13, *vert.* 32 (radiograph).

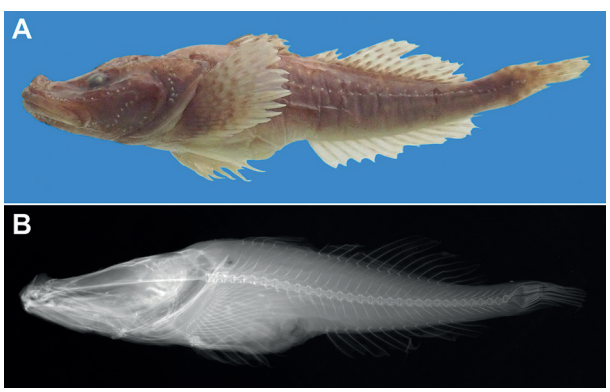

Fig. 11. *Abyssocottus elochini* Taliev, 1955, ZIN 46661, holotype, photo (A) and radiograph (B).

Type locality. North Baikal, near Cape Elokhin, depth 290 m.

Remarks. The Koryakov's label designated this specimen as a holotype; a drawing in the original description by Taliev (1955) was made from this specimen.

Abyssocottus godlewski griseus Taliev, 1955

(Fig. 12)

Types. The number of type specimens was not indicated by Taliev.

ZIN 50804, neotype, *SL* 125 mm, Lake Baikal, Maloe More Strait, Zunduk, depth 115–125 m, June 4, 1994, collector V. Sideleva, designated by Sideleva (2001).

Current status. Valid as *Limnocottus griseus* (Taliev, 1955) (Sideleva 1982).

Diagnostic characters. The body is elongated; the back behind the occiput is slightly raised. The snout narrows anteriorly, with a bump at the end. The eyes are convex, slightly elongated. The edges of the skull and infraorbital bones are not protruding. On the praeoperculum, the spine is hidden under the skin. The interbranchial space is narrow. There are very small prickles under the pectoral fin. The pelvic fins are long, reaching the anus or slightly extending beyond it. Body color is uniform. The length is up to 120 mm, usually 80–85 mm (Taliev 1955).

Counts. *D*1 4–6, *D*2 13–15, *A* 10–13, *P* 13–15, *V* I 3, *sp. br.* 5–6, *vert.* 32–33 (Taliev 1955); *D*1 5, *D*2 12, *A* 10, *vert.* 33 (radiograph).

Type locality. Lake Baikal, Maloe More Strait, depth 115–125 m.

Remarks. The neotype of *A. godlewski griseus* was designated as a result of taxonomic revision (Sideleva 2001). A mature and undamaged individual from the collection, which fully corresponds to the description, was used.

Abyssocottus pallidus Taliev, 1955

(Fig. 13)

Types. The number of type specimens was not indicated by Taliev.

ZIN 13744, neotype, *SL* 105 mm, Lake Baikal, 1902, collector A.A. Korotneff, designated by Sideleva (2001).

Current status. Valid as *Limnocottus pallidus* (Taliev, 1955) (Sideleva 1982).

Diagnostic characters. The body is very elongated and narrow. Prickles are clearly visible under the pectoral fins. The pelvic fins do not reach the anus slightly or go beyond it. The eyes are bulging and sharply elongated; their longitudinal diameter is much larger than the interorbital space. There are no spines or ridges on the head. The snout is flattened, resembles of a duck's beak; at its end, there is a bump. The length is up to 176 mm; mature individuals 90–140 mm long (Taliev 1955).

Counts. *D*1 4–5, *D*2 10–13, *A* 8–11(12), *P* (13) 14–16, *V* I (2)3, *sp. br.* 6–7, *vert.* 32–34 (Taliev 1955); *D*1 5, *D*2 12, *A* 9, *vert.* 33 (radiograph).

Type locality. Lake Baikal, south part.

Remarks. The neotype of *A. pallidus* was designated as a result of taxonomic revision (Sideleva 2001). A mature and undamaged individual from the collection, which fully corresponds to the description, was used.

Abyssocottus werestschagini Taliev, 1935

(Fig. 14)

Types. Described from five specimens.

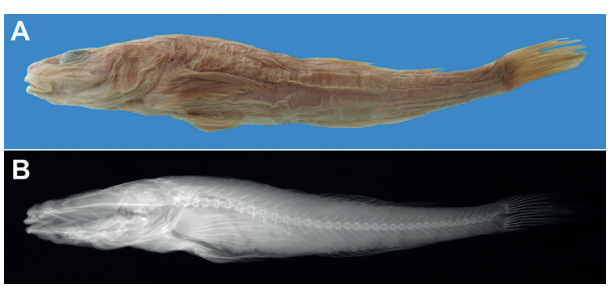

Fig. 12. *Abyssocottus godlewski griseus* Taliev, 1955, ZIN 50804, neotype, photo (A) and radiograph (B).

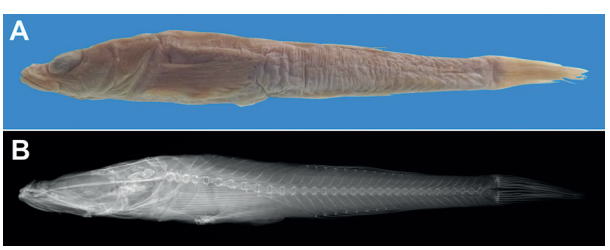

Fig. 13. *Abyssocottus pallidus* Taliev, 1955, ZIN 13744, neotype, photo (A) and radiograph (B).

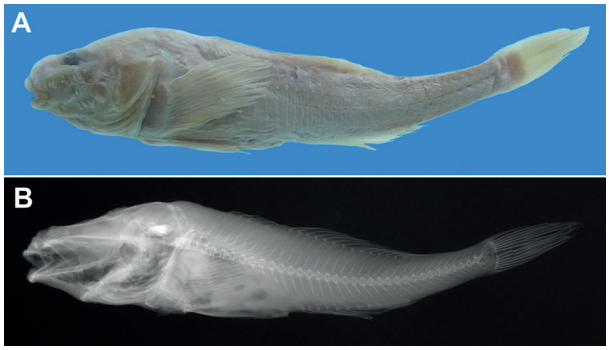

Fig. 14. *Abyssocottus werestschagini* Taliev, 1935, ZIN 46662, neotype, photo (A) and radiograph (B).

ZIN 46662, neotype, *SL* 99 mm, Lake Baikal, Cape Golyi, depth 1050–1145 m, July 19, 1977, collector V. Sideleva, designated by Sideleva (2003).

Current status. Valid as *Neocottus werestschagini* (Taliev, 1935) (Sideleva 1982).

Diagnostic characters. The body is soft, loose, covered with very delicate, folded skin. The spines on the praeoperculum are completely hidden under the skin. The back is raised behind the head. The dorsal fins do not join; the pelvic fins cover more than 1/2 of the space between the base of V and the anus. The infraorbital bones protrude somewhat. The eyes are oval shaped. The body is light gray, uniform in color. Males have a dark border in *D*1 (Taliev 1935, 1955).

Counts. *D*1 6–7, *D*2 15–17, *A* (11) 12–13, *P* 16–17, *V* I 3, *sp. br.* 6–7, *vert.* 33–34 (35) (Taliev 1935); *D*1 5, *D*2 15, *A* 11, *vert.* 35 (radiograph).

Type locality. Lake Baikal, central part, depth 1000 m.

Remarks. The neotype of *A. werestschagini* was designated as a result of taxonomic revision (Sideleva 2003). A mature and undamaged individual from the collection, which fully corresponds to the description, was used.

Asprocottus herzensteini abyssalis Taliev, 1955

(Fig. 15)

Types. The number of type specimens was not indicated by Taliev.

ZIN 46633, neotype, *SL* 53 mm, Lake Baikal, Bol'shie Koty village, depth 720 m, October 3, 1940, designated by Sideleva (2001).

Taliev's specimen: ZIN 46867, Listvyanka village, depth 700 m, 1947, collector D. Taliev, *SL* 54.3 mm.

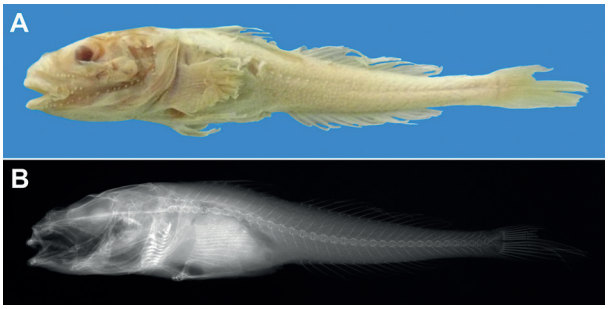

Fig. 15. *Asprocottus herzensteini abyssalis* Taliev, 1955, ZIN 46633, neotype, photo (A) and radiograph (B).

Current status. Valid as *Asprocottus abyssalis* Taliev, 1955 (Sideleva 1982).

Diagnostic characters. Fish has a long caudal peduncle and bases of unpaired fins, a large height of *D*1, as well as an elongated snout and a wide interorbital space. The pelvic fins are short. The head height and eye diameter are less than in the type species of the genus *A. herzensteini*. Prickles on the body are not large; they are absent on the head. The bump on the snout is absent. The infraorbital bone protrudes slightly to the side. The interbranchial space is narrow. The spines on the praeoperculum are half-covered with skin. The pelvic fins are short and do not reach the anus. The neuromasts of the lateral line system are at the top of the dermal papillae. The body color is white or slightly pinkish. The length is up to 78 mm, usually 50–55 mm (Taliev 1955).

Counts. *D*1 (5) 6–7, *D*2 (13) 14–15, *A* 13–14, *P* (13) 14–15, *V* I 3, *sp. br.* 5–7, *vert.* 32–34 (Taliev 1955); *D*1 7, *D*2 14, *A* 13, *vert.* 34 (radiograph).

Type locality. South Baikal, near Bol'shie Koty village, depth 720 m.

Remarks. The neotype of *A. h. abyssalis* was designated as a result of taxonomic revision (Sideleva 2001). A mature and undamaged individual from the collection, which fully corresponds to the description, was used.

Asprocottus herzensteini intermedius Taliev, 1955

(Fig. 16)

Types. The number of type specimens was not indicated by Taliev.

Not found.

Current status. Synonym of *Asprocottus herzensteini* Berg, 1906 (Sideleva 2001).

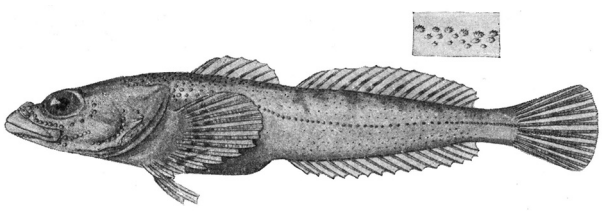

Fig. 16. *Asprocottus herzensteini intermedius* Taliev, 1955, picture from Taliev (1955).

Diagnostic characters. The body is elongated. There are prickles on the back and in the region of the caudal peduncle; largest prickles are behind occiput and under *D*1. The lower part of the body (except for the caudal peduncle) and the head are devoid of prickles. The neuromasts on the head sit on small papillae. There is a bump on the snout; the infraorbital bones form a crest. The edges of the orbits are raised above the eyes. The spines on the praeoperculum are semi-hidden in the skin. The interbranchial space is narrow. The pelvic fins do not reach the anus. The length is up to 71 mm, more often 52–55 mm (Taliev 1955).

Counts. *D*1 5–6, *D*2 15–16, *A* 14–16, *P* 15–16 (17), *V* I 3, *sp. br.* 5–6, *vert.* 32–34 (Taliev 1955).

Type locality. Baikal, Maloe More Strait, depth 210 m (Taliev 1955).

Remarks. This species was not identified among all specimens caught in Maloe More Strait. Morphological features indicated by D.N. Taliev (1955) are similar to those of *A. herzensteini* (this study).

Asprocottus herzensteini parmiferus Taliev, 1955

(Fig. 17)

Types. The number of type specimens was not indicated by Taliev.

ZIN 49702, neotype, *SL* 52.7 mm, Lake Baikal, Selenga shallow waters, depth 10 m, bottom trawl, 1988, collector V.G. Sideleva, designated by Sideleva (2001).

Current status. Valid as *Asprocottus parmiferus* Taliev, 1955 (Sideleva 1982).

Diagnostic characters. It is characterized by a large preanal distance, high trunk and head, and long maxillary bone. Behind the head, the back rises sharply. On the body, the bony prickles are arranged in fairly regular longitudinal rows. Sometimes the prickles reach the base of caudal fin rays. The belly and the part of body under the pectoral fins are usually devoid of prickles. Prickles are present on the top of skull and the buccal region of head. The pelvic fins are short and do not reach the anus. The interbranchial space is very narrow. Sexual dimorphism is not expressed. The length is up to 78 mm, more often 45–50 mm (Taliev 1955).

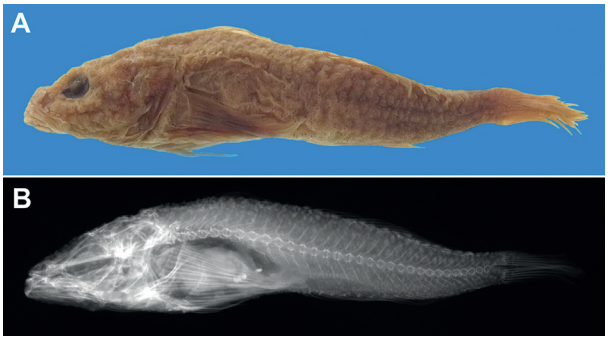

Fig. 17. *Asprocottus herzensteini parmiferus* Taliev, 1955, ZIN 49702, neotype, photo (A) and radiograph (B).

Counts. *D*1 5, *D*2 14–15, *A* 14–15, *P* 14–16, *V* I 3, *sp. br.* 5–6, *vert.* 33 (Taliev 1955); *D*1 5, *D*2 14, *A* 13, *vert.* 31 (radiograph).

Type locality. Lake Baikal, Selenga shallow waters.

Remark. The neotype of *A. h. parmiferus* was designated as a result of taxonomic revision (Sideleva 2001). A mature and undamaged individual from the collection, which fully corresponds to the description, was used.

Asprocottus herzensteini platycephalus Taliev, 1955

(Fig. 18)

Types. The number of type specimens was not indicated by Taliev.

ZIN 46863, neotype, *SL* 85mm, Lake Baikal, near the source of the Angara River, depth 250 m, April 26, 1976, collector V.G. Sideleva, designated by Sideleva (2001).

Taliev's specimens: ZIN 33014, one specimen, Lake Baikal, near the source of the Angara River, August 29, 1936, collector BLS, identified by D.N. Taliev; ZIN 33038, two specimens, Lake Baikal, near the source of the Angara River, September 15, 1936, collected and identified by D.N. Taliev.

Current status. Valid as *Asprocottus platycephalus* Taliev, 1955 (Sideleva 1982).

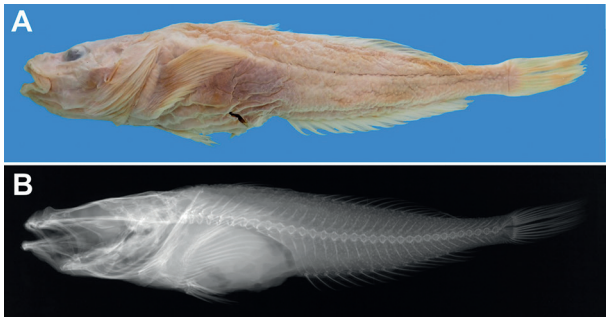

Fig. 18. *Asprocottus herzensteini platycephalus* Taliev, 1955, ZIN 46863, neotype, photo (A) and radiograph (B).

Diagnostic characters. The body is elongated. The prickles on the body are rarer than in other species of the genus. The head, the lower part of belly and the area under the pectoral fins are devoid of prickles. The neuromasts of the lateral line system on the head are located on dermal papillae. The infraorbital bone forms a ridge on the cheeks, while the supraorbital arches are almost not developed. The bump on the snout is small, the snout is flattened, resembles of a duck's beak. The spines on the praeoperculum are semi-hidden under the skin. The interbranchial space is narrow. Between the dorsal fins, there is a narrow space. The pelvic fins are short and do not reach the anus. The length is up to 102 mm, usually 70–75 mm (Taliev 1955).

Counts. *D*1 (4) 5–6, *D*2 13–14 (15), *A* 12–14 (15), *P* 13–15, *V* I 3, *sp. br.* 6–7, *vert.* 33–34 (Taliev 1955); *D*1 5, *D*2 15, *A* 15, *vert.* 33 (radiograph).

Type locality. Lake Baikal, near the source of the Angara River, depth 250 m.

Remark. The neotype of *A. h. platycephalus* was designated as a result of taxonomic revision (Sideleva 2001). A mature and undamaged individual from the collection, which fully corresponds to the description, was used.

Asprocottus megalops eurystomus Taliev, 1955

(Fig. 19)

Types. The number of type specimens was not indicated by Taliev.

ZIN 46624, neotype, *SL* 100.6 mm, the source of the Angara River, depth 50–80 m, May 7–8, 1973, collector V.G. Sideleva, designated by Sideleva (2001).

Current status. Valid as *Cyphocottus eurystomus* (Taliev, 1955) (Sideleva 2001).

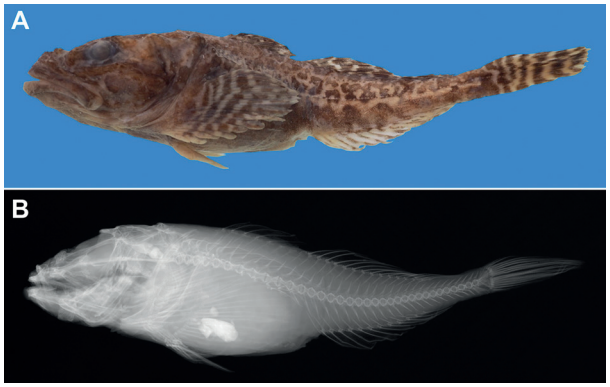

Fig. 19. *Asprocottus megalops eurystomus* Taliev, 1955, ZIN 46624, neotype, photo (A) and radiograph (B).

Diagnostic characters. The trunk is high. The back is sharply separated from the head and rises steeply. The pelvic fins do not reach the anus. The head is extremely sculpted, which is created by the convexity of the infraorbital bones, the ethmoideum, and the raised edges of the frontal bones. The snout is wide and does not resemble a duck's beak. The eyes are round and usually smaller in diameter than the width of the interorbital space. The spine on the praeoperculum is semi-hidden under the skin. The teeth are present on the jaws and vomer. The interbanchial space is quite wide. Rough prickles are present under the pectoral fins (Taliev 1955).

Counts. *D*1 6–7, *D*2 14–16, *A* (11) 12–14, *P* 15–17, *V* I 3, *sp. br.* 5–6, *vert.* 33–34 (Taliev 1955); *D*1 6, *D*2 15, *A* 12, *vert.* 34 (radiograph).

Type locality. South Baikal, the source of the Angara River, depth 50–80 m.

Remark. The neotype of *Asprocottus megalops eurystomus* was designated as a result of taxonomic revision (Sideleva 2001). A mature and undamaged individual from the collection, which fully corresponds to the description, was used.

Asprocottus pulcher Taliev, 1955

(Fig. 20)

Types. Described from three specimens.

ZIN 46656, syntypes (2), *SL* 65.3 and 57.2 mm, North Baikal, Ayaya Bay, station 5489/3, depth 57 m, bottom trawl, 1955, collector E.A. Koryakov.

Current status. Valid as *Asprocottus pulcher* (Taliev, 1955) (Sideleva 1982).

Diagnostic characters. The body is shortened. The back behind of the head is raised and forms

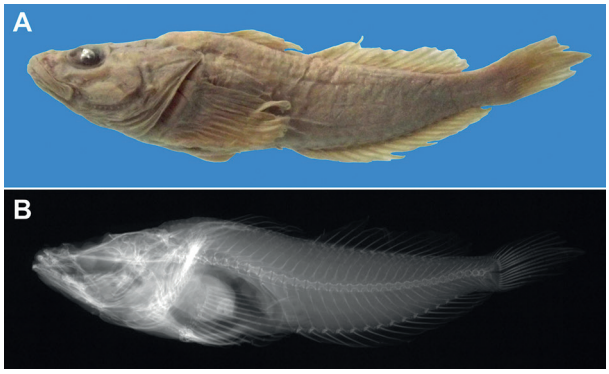

Fig. 20. *Asprocottus pulcher* Taliev, 1955 ZIN 46656, syntype *SL* 65.3 mm, photo (A) and radiograph (B).

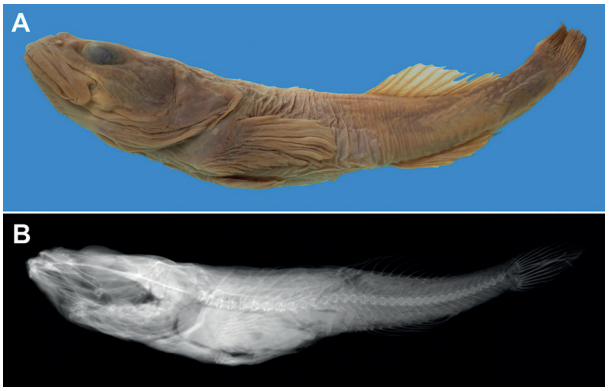

Fig. 21. *Limnocottus bergianus* Taliev, 1935, ZIN 32562, lectotype, photo (A) and radiograph (B).

a hump. The body is naked; sometimes there are tiny prickles on the back and the caudal peduncle. On the head, the neuromasts of lateral line system are located on small papillae. The eyes are tubular, protrude above the surface of the head. There is a bump on the snout. Suborbitalia form a ridge under the eyes. The spines on the praeoperculum are semi-hidden under the skin. The interbranchial space is rather narrow. The dorsal fins touch each other. The pelvic fins do not reach the anus. The length is up to 80 mm, usually 55–60 mm (Taliev 1955).

Counts. *D*1 6–7, *D*2 15–17, *A* 15–16, *P* 15–16, *V* I 3, *sp. br.* 6–8 (9), *vert.* (31) 32–33 (Taliev 1955); *D*1 6, *D*2 15, *A* 15, *vert.* 32 (radiograph).

Type locality. North Baikal, Ayaya Bay, depth 57 m.

Remarks. In the fish collection of ZIN, lot ZIN 46656 contains two specimens and a label of Koryakov stating that three specimens are the syntypes of *Cottinella pulcher.* Koryakov indicated that the third specimen was left at the Limnological Institute, Siberian Branch of RAS. The neotype of this species (ZIN 50873) was erroneously designated by Sideleva (2001).

Limnocottus bergianus Taliev, 1935

(Fig. 21)

Types. The number of type specimens was not indicated by Taliev.

ZIN 32562, lectotype, *SL* 189.7 mm, Lake Baikal, depth 630 m, 1931, collector D.N. Taliev, designated by Sideleva (2001).

Current status. Valid as *Limnocottus bergianus* Taliev, 1935.

Diagnostic characters. The body and especially the head are flattened. The abdomen is large and usually pendulous. The prickles are located under the pectoral fins. The pelvic fins do not reach the anus; the lower rays of the pectoral fin are fleshy. There is a wide spacing between the dorsal fins. The neuromasts of the lateral line system look like bright spots. The infraorbital bones and the edges of the skull do not protrude. There is a small bump on the snout. The eyes are convex; the interorbital space is wide. The interbranchial space is wide. The sexual dimorphism is not expressed. The length is up to 250 mm, usually 180–200 mm (Taliev 1935, 1955).

Counts. *D*1 5–7, *D*2 12–14, *A* 8–10 (11), *P* (13) 14–15, *V* I, 3, *sp. br.* 7–9, *vert.* 32–34 (Taliev 1935); *D*1 5, *D*2 13, *A* 9, *vert.* 33 (radiograph).

Type locality. Lake Baikal, southern part, depth 630 m.

Remarks. The lectotype of *L. bergianus* was designated as a result of taxonomic revision (Sideleva 2001).

Limnocottus kozovi Taliev, 1946

(Fig. 22)

Types. Described from one specimen.

ZIN 49713, holotype, *SL* 71 mm, Lake Baunt, July 1939, collector F.B. Mukhomediyarov.

Current status. Synonym of *Cottus sibiricus* Warpachowski, 1889 (re-identified by Sideleva after studying morphological characters of the holotype).

Diagnostic characters. The body is elongated; the back is raised behind of the head. The prickles

Fig. 22. *Limnocottus kozovi* Taliev, 1946, ZIN 49713, holotype, photo (A) and radiograph (B).

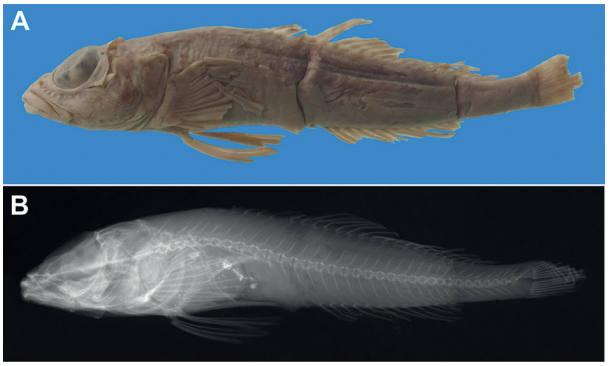

Fig. 23. *Metacottus gurwici* Taliev, 1946, ZIN 46660, holotype, photo (A) and radiograph (B).

are located only under pectoral fins. The pelvic fins are short and do not reach the anus. The eyes are oval shaped. The interbranchial space is rather narrow. The upper spine on the praeoperculum is hidden under the skin. There is a convexity of the infraorbital shield, swelling of the ethmoideum, elevation of the edges of the frontal bones in the orbital region. All these features give the head a characteristic sculpture (Taliev 1946, 1955).

Counts. *D*1 7, *D*2 15, *A* 13, *P* 17, *V* I 4, *vert*. 34 (Taliev 1946); *D*1 7, *D*2 16, *A* 14, *vert*. 34 (radiograph).

Type locality. Lake Baunt, the Lena River basin.

Remarks. According to Taliev (1946), species "*kozovi*" belongs to the endemic Baikal genus *Limnocottus*. Representatives of this genus are distributed only in Lake Baikal. According to studies of fish from Baunt, there are no species of Baikal sculpins in this lake (Skryabin 1977). The holotype was re-identified by us as Siberian sculpin (*Cottus sibiricus*). This species is found in Lake Baunt (Skryabin 1977). The holotype is in bad condition. The specimen was damaged by opening the stomach. The content of the stomach is stored separately in a test tube. It is represented by amphipods.

Metacottus gurwici Taliev, 1946

(Fig. 23)

Types. Described from one specimen.

ZIN 46660, holotype, *SL* 53 mm. Lake Baikal, opposite the Marituy, station 1628, depth 93 m, June 27 (year not specified), collector E.A. Koryakov, identified by D.N. Taliev.

Current status. Valid as *Procottus gurwici* (Taliev, 1946) (Sideleva 1982).

Diagnostic characters. The body is completely naked; prickles are absent. The pelvic fins are long and reach the anus. The eyes are elongated. There is a bump on the snout. There is a distinct black spot in the end of *D*1. One male (with mature gonads) is known, 62 mm long (Taliev 1946).

Counts. *D*1 7, *D*2 19, *A* 13, *P* 16, *V* I 3, *vert*. 33 (Taliev 1946); *D*1 7, *D*2 19, *A* 13, *vert*. 33 (radiograph).

Type locality. South Baikal, opposite the Marituy, depth 93 m.

Remarks. This species was transferred to genus *Procottus* as a result of taxonomic revision (Sideleva 1982).

Procottus jeittelesi major Taliev, 1949

(Fig. 24)

Types. The number of type specimens was not indicated by Taliev.

ZIN 52082, neotype, *SL* 196 mm, Lake Baikal, Bol'shie Koty village, depth 180 m, March 1998, collector V. Ostroumov, designated by Sideleva (2001).

Current status. Valid as *Procottus major* Taliev, 1949 (Sideleva 1982).

Diagnostic characters. The body is naked. The lower jaw is similar to or somewhat shorter than the upper. The mouth lips are fleshy. The ethmoid does not form a bump on the snout. The interbranchial space is wide. All rays of the ventral fin are of the same length; 2/3 from the base. The pelvic fins of males and females do not reach the anus. The upper rays of the pectoral fin are usually branched. The eyes are round

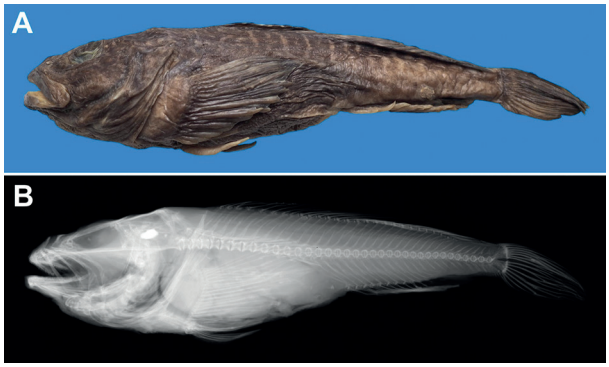

Fig. 24. *Procottus jeittelesi major* Taliev, 1955, ZIN 52082, neotype, photo (A) and radiograph (B).

or slightly oval. *D*1 and *D*2 grow together, while at the border of their joint there is a small notch. The length of *Procottus jeittelesi major* reaches 300 mm, usually 180–220 mm (Taliev 1955).

Counts. *D*1 (7) 8–9, *D*2 19–21, *A* 13–16, *P* 16–19, *V* I 3, *sp. br.* 5–7, *vert.* 36–37 (Taliev 1955); *D*1 8, *D*2 20, *A* 13, *vert.* 35 (radiograph).

Type locality. South Baikal, Bol'shie Koty village, depth 180 m.

Remarks. Syntypes are not known. The neotype of *P. jeittelesi major* was designated as a result of taxonomic revision (Sideleva 2001). A mature and undamaged individual from the collection, which fully corresponds to the description, was used.

Procottus jeittelesi minor Taliev, 1946

(Fig. 25)

Types. The number of type specimens was not indicated by Taliev.

ZIN 52223, neotype, *SL* 55.9 mm, Lake Baikal, Bol'shie Koty, depth 80–120 m, July 1995, collector V. Sideleva, designated in this study.

Current status. Synonym of *Procottus gurwici* (Taliev, 1946) (Sideleva 1982).

Diagnostic characters. The body is completely naked. The lower jaw protrudes somewhat forward. The mouth lips are not fleshy. The infraorbital bone is not protruded. The ethmoid forms a bump. The interbranchial space is narrower than in the type species of the genus *P. jeittelesii*. The spiny and first branched ray in the ventral fin are much shorter than the other two rays. The ventral fins are long and reach the anus. The eyes are elongated. *D*1 and *D*2 do not touch together. A rudimentary spine on the praeoperculum is

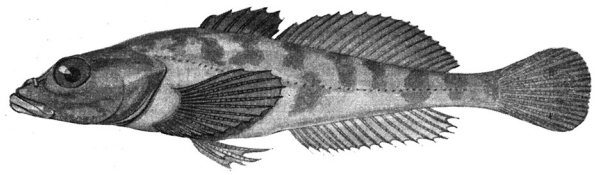

Fig. 25. *Procottus jeittelesi minor* Taliev, 1946, picture from Taliev (1955).

hidden under the skin. In the end of D1, females and males have a distinct black spot. The length is up to 71 mm, usually up to 65 mm (Taliev 1946).

Counts. *D*1 7–8, *D*2 18–20, *A* 13–15, *P* 15–17, *V* I 3, *sp. br.* 5–6, *vert.* 34 (Taliev 1955); *D*1 7, *D*2 18, *A* 14, *vert.* 33 (neotype).

Type locality. South Baikal, Bol'shie Koty, depth 80–120 m.

Remarks. Syntypes are not known. The neotype of *P. jeittelesi minor* is designated by us. A mature and undamaged individual from the collection, which fully corresponds to the description, is used. The genus *Procottus* is currently being revised by Sideleva. The status of *P. jeittelesi minor* may be changed.

CONCLUSION

The information, photographs and radiographs for type specimens of 24 species and subspecies described by D.N. Taliev are published for the first time. The largest number of taxa (83%) belong to the families Cottidae and Abyssocottidae from Lake Baikal. According to the modern fish system, 50% (or 12 species) of taxa described by Taliev are considered valid (two species from the family Cottidae and 10 species from the family Abyssocottidae). Of the 24 taxa, the type specimens of 21 are kept in the collection of the Zoological Institute of the Russian Academy of Sciences. Types of two subspecies and one species were not found. The information given in the catalogue can be used for accurate identification and comparative analysis of salmon, cod and freshwater cottoid fish of the Russian Federation.

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