

Mel'nikov, Yu.I. 2000. O yuzhnoi granitse areala krasnozoboi gagary *Gavia stellata* v Vostochnoi Sibiri [On southern border of the breeding range of the Red-throated Diver *Gavia stellata* in East Siberia]. // Russkiy orn. Zhurnal [Russian Journal of Ornithology]. Express-issue 94: 19-22.

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According to modern knowledge, the southern boundary of nesting range of the Red-throated Loon (RTLO) (*Gavia stellata*) reaches 59 N.L., extends to the north of Lake Baikal and upper parts of Zeya River (Flint, 1982; Stepanyan, 1990). However there is little information available on this species from eastern Siberia. That can be explained by the fact that in the south of its range the species breeds infrequently and irregularly (Flint, 1982). Examination of available data and recent findings allows a more precise determination of the southern periphery of the species breeding range in East Siberia.

The Red-throated Loon (RTLO) was observed in flight in Bura River valley near the border of Russia and Mongolia (Molleson, 1897; Fomin, Bold, 1991). There are no other data available on this species from Mongolia. According to Vasil'chenko (1987), the RTLO is a rare migrant through mountain ridges of Khamar-Daban. There is information on harvesting four RTLOs in May in Selenga River delta on Kamyshovoe Lake, and in the third decade of June 1957 a pair of loons was observed (Izmailov, Borovitskaya, 1973). According to Gagina (1961), the RTLO rarely breeds within limits of Selenga ornithogeographic plot and is an accidental migrant in Priargun'ie (Cis-Argun River area).

In August the RTLO was recorded in Barguzin Nature Reserve (Izmailov, Borovitskaya, 1973). Quite often it occurs in Barguzin Gulf (Middle Baikal). It was observed on 12 July 1991 on Arangatui Lake. The bird was looked at thoroughly to exclude errors in identification (Heyrovsky et al 1992). In this region the RTLO is known to be a common breeding species since the beginning of the 20-th century (Turov, 1923; Gagina, 1960). At the present time it still occurs here in the summer and, probably, breeds in swamps surrounding Arangatui Lake.

Earlier in the century, the RTLO was a common breeding species of Verkhneangarskiy (Upper Angara) ornithogeographic plot, and also was sighted on nest in North-Eastern Pribaikalskiy (Cis-Baikal Lake area) and West Pribaikal'skiy (Cis-Baikal Lake area) ornithogeographic plots (Gagina, 1961). Obviously, these conclusions were based on observations of previous researchers in Northern Baikal (Turov, 1923; Stegmann, 1936) and Upper Angara Valley (Novikov, 1937). However all these authors registered only summer records of the Loon and did not find nests or broods (Turov, 1924; Vorob'yov, 1927; Skryabin, Filonov, 1962). Therefore, our finding of the brood (adult and two chicks) in August 1988 on the lake amidst bogs in Negnedai River valley near the border of the Baikalo-Lena Nature Reserve is of great interest. During migration (or in flight), this species was recorded on Ziminsko-Kuitunskiy steppe plot in Oka River flood-land (Solntsezero Lake, 15 May 1998). In all probability, the RTLO episodically breeds within the limits of these territories.

At the beginning-middle of the 20-th century the RTLO was observed nesting on Tungusskiy and probably inhabited Bodaibinskiy and Chro-Muinskiy ornithogeographic plots (Gagina, 1961). In fact, it nested in Nizhnyaya (Lower) Tunguska Valley (Tkachenko 1924, 1937), and near Podvolochnaya village the brood was harvested. At the present time this species does not nest here (Vodop'yanov, 1988). However records of the RTLO in August 1983 in the basin of Teteya indicate they may be breeding on tributaries of Nizhnyaya Tunguska River (Mel'nikova et al., 1997; Mel'nikov, 2000).

In Bodaibinskiy region the RTLO nests in Vitim(skiy) Nature Reserve. In the summer of 1985 one brood was recorded on Amalyk River, two – on the lake in the valley of Nezametnyi klyuch (Amalyk basin), and two – on Okunevov Lake. Fifteen RTLOs were recorded on Oron Lake in the middle of September. Probably, these birds were broods, gone with the stream in Oron (hunter Reukov, pers. comm.). In August 1989 we have sighted a brood (an adult and two chicks) on Amalyk River, 2 km from the mouth. On Vitim plateau Upland the RTLO was sighted in flight on Turkhel Lake (group of Ivano-Arakhleiskie Lakes). In June it was observed on Muya River (Bolshoe Lake) and Okunevskie Lakes, and also on the other lakes on Stanovoe Upland (Izmailov, 1967). Pavlov (1948) points at the movement of RTLO in the region of Tasei Lake. At the present time the RTLO occurs in small numbers during migrations in the system of Bauntovskiy Lakes. Here, on 5 May 1981 in Tsipa River valley we have recorded five birds (232 were harvested), and 21 May 1981 – 40 passage specimens. Records of the Loons from 4 June and 21-27 August, probably, indicate these were breeding birds (Popov, pers. comm.).

Thus, the periphery of the RTLO breeding range goes considerably further south, as it is indicated in the last reviews (Flint, 1982; Stepanyan, 1990). The area of its episodic, and probably, constant nesting sites in small numbers crosses Middle Baikal, and northwards, in sparsely-populated area (Vitim Nature Reserve) the species commonly occurs. Breeding of single pairs on Vitim plateau is not excluded. This plateau was poorly explored until nowadays. The disappearance of the RTLO from the floodplain of Nizhnyaya Tunguska, where earlier it was quite common, undoubtedly, is related to the intensive development of this territory by people. It is still sighted on some tributaries of this river, where there is less anthropogenic influence (Mel'nikova et al., 1997).

At the present time, owing to the sharp decline in anthropogenic pressure on the water bodies in the floodplain of Lower Tunguska, the gradual restoration of the RTLO numbers is possible. Climate changes also affect dynamics of the southern periphery of the RTLO distribution. It is not excluded, that decline of its numbers in the region is connected with the climate warming in the second half of the 20-th century.

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