

## **Greetings from the land of four loon species: trends, densities, distribution and habitat use of *Gavia adamsii*, *G. arctica*, *G. pacifica* and *G. stellata* in West Chukotka, Russia**

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Plain and mountain tundras of Chukotka, the eastmost part of Siberia, Russia, are typical with breeding of four loons as follows, Yellow-billed Loon (*Gavia adamsii*), Arctic Loon (*G. arctica*), Pacific Loon (*G. pacifica*) and Red-throated Loon (*G. stellata*). In 2002-2012 we investigated breeding distribution and habitats of all four species over the area of 180 km from the west to the east and of 220 km from the north to the south. This area includes mountain tundra in upper reaches of rivers, river flood plains, deltas, inland tundra and coastal tundra.

Quantitative surveys for breeding density (breeding pair density and nest density) and for post-breeding density (brood density and density of non-breeders) occurred in 2009-2012. Selected plots 1 square km each were surveyed on foot during nesting period in Chaun Delta; and selected areas 6 to 116 square km in size were surveyed on foot during post-breeding (brood-rearing) period. Boat surveys were employed along the rivers from their upper reaches to the sea and along the coastal line of the East-Siberian Sea. All loon signs were mapped.

Inland tundra of West Chukotka supports the highest in the world density of threatened Yellow-billed Loon in 0.998 birds per square km. Our data were compared to the published information on loon abundance and distribution in the area. Although historical data are often scarce and non-quantitated we can state that two species Yellow-billed Loon and Pacific Loon had positive trends during 1971-2012, the number of Arctic Loon seems to be stable and the trend of Red-throated Loon is unclear in Chukotka.