

## Ornithology at Lake Baikal: a brief history of research

Lake Baikal is often considered as a single locality in ornithological literature, but it is 640 km long and 40–80 km wide. Its axis almost follows a meridian, its northern end protrudes into the boreal taiga, while its southern end projects into the south Palearctic steppes. As a result, Lake Baikal covers a number of different areas, ornithological knowledge of which varies from moderately good to zero.

The first data on the birds of Lake Baikal and its surroundings were obtained by German naturalists in the service of Russian czarina Ekaterina II in the 1770s.<sup>1,2</sup> Peter Simon Pallas (1741–1811) observed a few bird species in the vicinity of Irkutsk and at Gusinoe Lake in March 1772.<sup>3</sup> His fellow traveler, Johann Gottlieb Georgi (1738–1802), traveled around Lake Baikal in summer 1772 and subsequently produced the first list of birds of the region.<sup>4</sup> The latter paper also included descriptions of two east Siberian duck species: Falcated Duck *Anas falcata* and Baikal Teal *Anas formosa*.

The next research initiated the Siberian Branch of the Russian Geographic Society launched in Irkutsk in 1851. Worth mentioning especially, is the journey by Gustav Radde (1831–1903) around the northern end of Lake Baikal in summer 1855.<sup>5</sup> In July 1855 Radde observed thousands of Great Cormorants *Phalacrocorax carbo* in the Barguzinskij Bay. The species is now extinct at Lake Baikal.

The great impetus for ornithological research at Lake Baikal was a seemingly unrelated and geographically distant political event: the uprising of the Polish intelligentsia against Russian supremacy in 1863 (Poland was part of the Russian Empire at the time). Czar Aleksandr II suppressed the uprising and banished a number of Polish leaders to live in determined places in East Siberia.<sup>6</sup> Benedykt Dybowski (1833–1930), a Polish zoologist and doctor, was sentenced to live in the tiny Kultuk village in the southernmost corner of Lake Baikal. He spent 14 years (1864–1878) at Lake Baikal and organised zoological research in the region, being in contact with local people and his fellow countrymen living in East Siberian exile, of which Wiktor Godlewski (1831–1900) and Alfons Parvex (1833–after 1890) are worthy of mention.<sup>7–9</sup> Dybowski mailed many collected specimens and written notes to Wladyslaw Taczanowski (1819–1890) in Warsaw,

Poland, who published on the basis of these data a series of papers and summarised the results in the posthumously published work *Faune ornithologique de la Sibérie Orientale*.<sup>10</sup> Numerous other data and the names of Dybowski's collaborators were deposited in the files of the Russian Geographic Society in Irkutsk, where they were destroyed during the fire of 1879.

After this 'Polish' period, ornithological research at Lake Baikal returned to occasional observations by local naturalists, supplemented by a few expeditions,<sup>11,12</sup> notably G. G. Doppelmajr's and S. S. Turov's visits to the Barguzinskij Range in summer 1915<sup>13</sup> and 1922,<sup>14,15</sup> respectively, and Boris Stegman's travel around northern Lake Baikal in summer 1930.<sup>16</sup> The situation changed only during the late 1950s and early 1960s when several mainly Irkutsk-based ornithologists, including G. K. Borovickaja, K. P. Filonov, T. A. Gagina, I. K. Gusev and I. V. Izmajlov, N. I. Litvinov, and N. G. Skrabin, started long-term studies of Baikal birds. In the 1970s they were joined by a new generation of ornithologists, including K. G. Beljaev, Ju. V. Bogorodskij, C. Z. Dorziev, Ju. I. Mel'nikov, S. V. Pyz'janov, and V. A. Tolcin.

Most of the research at Lake Baikal has been done by professional naturalists. The work of local birdwatchers was triggered and organised only by B. Dybowski in the 1860–1870s and by T. N. Gagina in the 1950–1960s. Since the 1970s, popular-scientific publications have been produced to inform local inhabitants of the birds and their conservation,<sup>17–20</sup> but no comprehensive field-guide is currently available in Russian or Buryat and local birdwatching is virtually non-existent.

Uncritical lists of avian species recorded or reportedly recorded from various regions, which included Lake Baikal or its parts, were presented by Gagina<sup>21–24</sup> in the 1950–1960s, and by Dorziev and coworkers<sup>25–27</sup> in the 1990s. Reviews of local faunas are available for the southern Predbajkal'e,<sup>28</sup> Verchneangarskaja Basin,<sup>29</sup> Maloe More,<sup>30</sup> Ol'chon island,<sup>31</sup> Uskanji islands,<sup>32–34</sup> Svjatoj Nos wetlands,<sup>35</sup> Chamar-Daban,<sup>15</sup> Vitim highlands,<sup>36</sup> and south-western Zabajkal'e.<sup>37</sup> See also the Red Data Books for Buryatia<sup>38</sup> and the Irkutsk Province,<sup>39</sup> and the monograph by Skrjabin.<sup>40</sup>

Leaving aside short-term one-off visits, the only long-term research currently being undertaken at Lake Baikal is by a Czech team, headed by Petr Stýblo, which has worked at Lake Baikal since 1991 and focusses on the birds of the Zabajkal'skij National Park.<sup>41,42</sup>

Much work has been done at Lake Baikal, but the numbers of local ornithologists and birdwatchers is negligible in comparison with the vast area they are 'responsible' for. There is thus considerable space for visiting ornithologists and birdwatchers who can add valuable data on both the distribution and ecology of Baikalian birds.

**Note:** Three untranslatable geographic terms relevant to Lake Baikal are widely used in Russian literature, although none of them is exactly defined. *Pribajkal'e* (Around-Baikalia) refers to Lake Baikal and its surroundings; *Zabajkal'e* (Trans-Baikalia) refers to the region east of Lake Baikal mainly to the southern steppe belt; while *Predbajkal'e* (Cis-Baikalia) refers to the region west of Lake Baikal. The latter two regions extend roughly 500 km east and west from Lake Baikal.

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