

## The current status of the world's northernmost colony of Dalmatian Pelican *Pelecanus crispus* in Omsk Oblast

Sergej A. Soloviev and Oleg S. Soloviev

Aktueller Status der nördlichsten Kolonie des Krauskopfpelikans *Pelecanus crispus* in der Region Omsk

1917 wurden erstmals Krauskopfpelikane auf den Seen in der Nähe von Omsk beobachtet. Seit 1983 nisten sie auf dem See Tennis (56°07'N, 71°45'E) in der nördlichen Waldsteppe der Region Omsk. Wir haben am 20. August 2013 auf diesem See acht fast ausgewachsene, aber noch nicht flugfähige Jungvögel gefangen und beringt. Insgesamt zählten wir rund 100 nicht flugfähige Jungvögel und rund 400 erwachsene Vögel auf dem See Tennis.

**Keywords:** Dalmatian Pelican, *Pelecanus crispus*, region Omsk, Siberia, breeding colony, population dynamics.

Sergej A. Soloviev, Omsk State University after F. M. Dostoevsky, Omsk, the prospectus Mira 55a, room 314, Russia, 644077

Tuvan State University, Kyzil, Ul. Lenina, 36, Russia, 667000

E-Mail: solov\_sa@mail.ru

Oleg S. Soloviev ✉, National Research Tomsk State University, Tomsk, the prospectus Lenina 36, Tomsk 634034, Russia

E-Mail: soloviev.oleg@gmail.com



Fig 1. Location of Omsk Oblast in South-western Siberia. – Lage der Region Omsk in Südwest Sibirien.

## Introduction

At first, I. I. Melnikov (1888) observed single pelicans, not identified to species, in April on lakes near Omsk (Fig. 1). M. D. Ruzski (1897) wrote that the Dalmatian Pelican was a very rare species on fresh and salt lakes in a southern part of the Tobolsk province of the Russian Empire, nowadays territories within the Krutinsky and Tjukalinsky regions of Omsk Oblast. In 1917 this pelican was sighted on a lake near Tatjanovka station, and on other lakes (Lavrov 1925). A. P. Kadenazi (1964) noted four Great White Pelicans *Pelecanus onocrotalus* on lake Berezino of Tjukalinsky region which flew for feeding on the lake Iankovskoe. In September 1972 Dalmatian Pelican was recorded from the territory of Omsk (Milovidov and Schevirnogow 1977). Since the late 20<sup>th</sup> century, Dalmatian Pelicans have nested on Lake Tennis (56°07' N, 71°45' E, Fig. 2) in the Krutinsky region of Omsk Oblast (Jakimenko and Gavrilin 1995), and since the summer of 1994 single birds were noted on lakes in the Sargatsky region (also northern forest-steppe).

## Material and Methods

Our survey and monitoring of the fauna and bird populations of Omsk and Omsk Oblast started in 1973 (Soloviev 1979) and continues to the present time (Soloviev 2012).

At lake Tennis birds were counted from a boat along 10 km shoreline every second week. Bird surveys were conducted, as a rule, without restrictions on the research zone, with subsequent recalculation of the square on the detection range of interval methods. This method was based on that of Ravkin et al. (1999), and Livanov and Ravkin (2006). For birds, which were marked flying in the sky, amended on the middle speed of their moving (Ravkin and Dobrohotov (1963).

## Results and Discussion

Numbers of Dalmatian Pelicans increased at the beginning of the 21<sup>st</sup> century. Between 2000 and 2006 the total numbers increased ninefold, from 32 to 300 birds. In 2007, the island where the pelicans lived was destroyed by a storm, forcing them to nest on the shoreline, where their eggs were broken by gulls and crows. The population then decreased to 150 birds. In 2010 the Dalmatian Pelican colony increased to 300 birds. In this year



✚ Location of nesting colony of Dalmatian Pelican

**Fig. 2.** Map of Krutinsky District (Omsk Oblast) – System of lakes Saltaim-Tenis. – Karte des Krutinsky Distrikts (Oblast Omsk) mit den Saltaim-Tenis-Seen.

the water level was low and Cormorants were absent from lake Tennis.

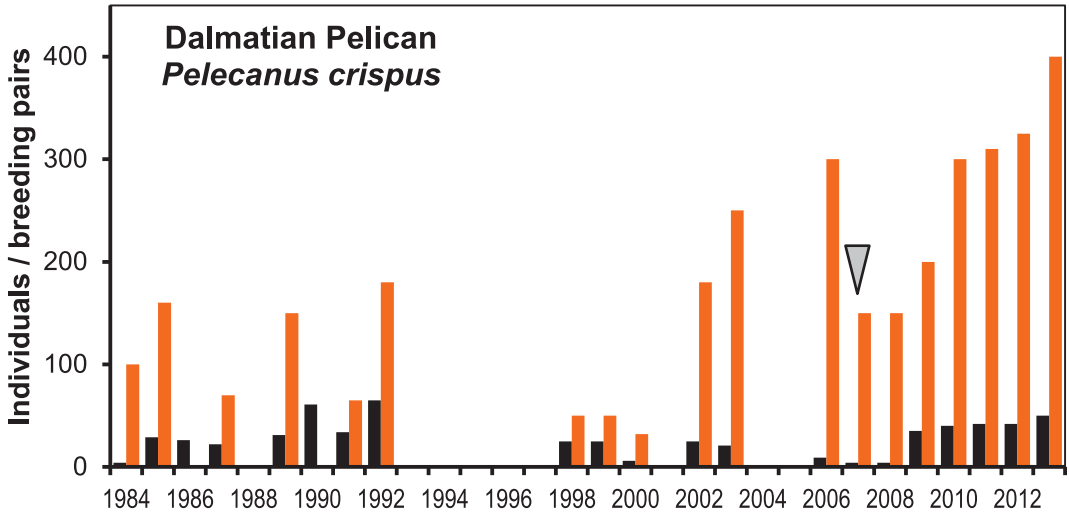
The number of nesting pairs of Dalmatian Pelican doubled from 2000 to 2006, then increased to 35 pairs in 2009. In 1984 only 4 pairs nested at the lake, and 34 pairs in 1991 as in 2009. On August 10, 2009 80 young birds were counted. In 2013 50 pairs of adult birds and 100 young birds were counted.

Data from 2000, when two expeditions worked on Lake Tennis with differing results, have been excluded from our analysis.

Stormy weather in May 2007 resulted in the destruction of the nesting island. On August 10<sup>th</sup> 2006 and in subsequent years up until 2013, the authors caught and ringed young pelicans, close to fledging, at this island, as part of a study to identify migration routes and winter quarters of the pelicans.

On 30<sup>th</sup> June 2013, in addition to nests on islands, we found three young Dalmatian Pelicans, about one month old, along the eastern shore of Lake Tennis.

Further pelicans were found in the north and centre of the lake. On an island in the north we found 6 young birds, but ringed only two, because



**Fig. 3.** Development of the population of Dalmatian Pelicans on Lake Tenis. Black bars: breeding pairs; orange bars: total number of birds. The triangle indicates the year when the breeding island was destroyed by storm. – *Bestandsentwicklung des Krauskopfpelikans *Pelecanus crispus* am Tenis-See.* Schwarze Säulen: Brutpaare, orange Säulen: Anzahl anwesender Vögel. Das Dreieck markiert das Jahr, in dem die Brutinsel durch einen Sturm zerstört wurde und die Kolonie an das Ufer umsiedelte.



**Fig. 4.** Dalmatian Pelican *Pelecanus crispus* with nestlings at Lake Tenis, Omsk Oblast. – *Krauskopfpelikan *Pelecanus crispus* mit Jungvögeln am Tenis-See, Südwestsibirien.*

four were too small to ring. On four islands in the centre of Lake Tennis approximately 400 individuals of Dalmatian Pelicans were found including some 100 chicks. On August, 20 2013 we caught and ringed 8 young non-flying birds.

### Conclusions

To safeguard the population of Dalmatian Pelicans at Lake Tennis we need urgent implementation of management work for preservation of a habitat. In April 2007, the nesting island opposite the centre of hunting base № 2 was successfully enlarged by towing islands of floating vegetation, drawn on cables by boats from a fish factory, and anchoring these islands in place. More effective action would be the sinking of two metal pontoons near the islands and building a new island on this base to form a new marsh while leaving the existing breeding island untouched.

To verify our findings we organized an expedition in 2013 and found that the colony of Dalmatian Pelicans had increased to 100 young birds and 50 pairs. In total we counted 400 birds in the colony. This is a great result, indicating that conditions for the Dalmatian Pelican at Lake Tennis are very suitable. It is hoped that in the future the current population level will be maintained or continue to increase.

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**Oleg S. Soloviev, Jr.** 1996, laboratory assistant in the laboratory of comparative genomics, Institute of Molecular and Cell Biology (Novosibirsk, Russia); Expeditions of Tomsk State University in Republic of Chakassia and Republic of Tuva (Russia), research work on biodiversity.



**Sergej A. Soloviev**, Professor, Department of inorganic chemistry, Omsk State University after F.M. Dostoevsky, Russia. Scientific projects in the Omsk oblast and Republic of Kazakhstan in Omsk State University and in Tuvan State University.

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Autor(en)/Author(s): Soloviev Sergej A., Soloviev Oleg S.

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