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DALMATIAN PELICANS (*PELECANUS CRISPUS*) IN DUMRE LAKES (CENTRAL ALBANIA)

Numerous studies have recognized the importance of long-term ecological research (CODY and SMALLWOOD, 1996; COLLINS, 2001; MAGURRAN *et al.*, 2010). They have significantly enhanced our comprehension of animal life history strategies. Through these investigations, an attempt is here proposed to add information about population size and geographic presence in different aquatic environments of *Pelecanus crispus*, with the aim to stimulate a study on habitat preference (CATSADORAKIS *et al.*, 2024) and/or adaptation of an endangered species to new situations (Near Threatened – NT, accordingly the IUCN Red List). In order to obtain better foraging options, avoid freezing temperatures, and meet the high energy requirements of youngs, Dalmatian pelicans (*Pelecanus crispus*) can move from their usual breeding grounds, which are usually isolated, shallow, and undisturbed wetlands, to other aquatic environments. Dalmatian pelicans have recently observed to use annually a number of different wetlands across northern Greece, SE Europe and Turkey (EFRAT *et al.*, 2018; CATSADORAKIS, 2019; GEORGOPOULOU *et al.*, 2023). The conservation of the breeding populations of DPs in SE Europe depends not only on good habitat conditions prevailing in individual wetlands, but also on a wider network of water bodies extending from the Prespa lakes to eastern Anatolia in Turkey, and from Lake Karla in the south (GEORGOPOULOU *et al.*, 2023). Notwithstanding an intense care and observation of the species in south-east Europe, the distribution of the species in Albania is not well known.

In case of Albania the only location site with breeding colonies, population growth and breeding success of the Dalmatian pelican (*Pelecanus crispus*) was the lagoon system of Divjaka-Karavasta. Fish productivity is oscillating between maximum value of 61.95 kg/ha recorded in 1975–80 and minimum value of 31 kg/ha in 2020 (SHUMKA *et al.*, 2023). During 2019–2020, one of the main factors that probably affected (negatively) fish productivity was the increase in the population of blue crab (*Callinectes sapidus*) in the Karavasta lagoon (MALI *et al.*, 2023).

Further on, habitat degradation at the Karavasta Lagoon is progressing, and possibly causing significant biodiversity loss. Key issues include the loss of over 50% of the Dalmatian pelican nesting island due to marine erosion, fragmentation of forest cover, soil salinization, and pollution from neighboring rivers (PAPTHIMIU *et al.*, 2025).

Additionally to this situation, the Dalmatian pelicans migration/dispersal to other aquatic ecosystems could be also due to a common behavior of “after breeding dispersal” to avoid crowding and competition in the native site.

Tab. 1 geographic characterization of lakes interested by pelican presence in 2022-2026.

Name of lakes	Latitude N	Longitude E	Altitude Asl (m)	Area (ha)	Depth max(m)	pH
Balshi lake	40°58'38"	19°53'22"	148	29.60	4.0	8.62
Dorbi lake	40°57'06"	19°52'20"	133	10.54	2.0	10.58
Grekan lake	40°93'51"	19°92'03"	-	65	15	-

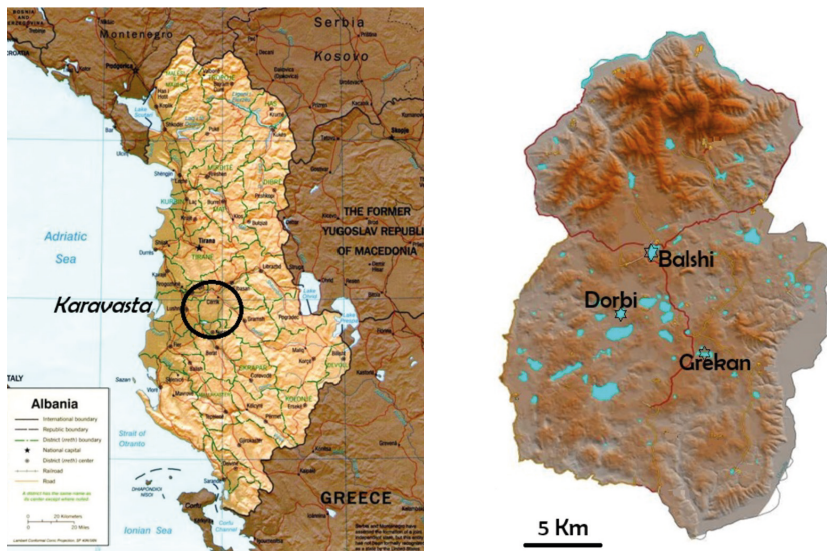


Fig. 1 - map of Albania (on the left) with a circle on the Dumre area, and of Karavasta lagoon on the sea coast. On the right, a close up of the Dumre lake District, with indication of the three lakes (stars) object of the present note.

We found for the first time (in the last 50 years) some specimens of *Pelecanus crispus* in three lakes: Dorbi, Grekan, and Balshi, of the Dumre area, a district of many small karstic lakes (more than 100) affected by human agricultural activities and intense land cover modification in the last 50 years (ALFONSO *et al.*, 2011; 2014). The enlargement of pelican-population distri-

bution cannot be attributed to competition in Karavasta, because there the population is in demographic diminution. The enhancement of pollution and anthropic disturbance in the Karavasta lagoon (as assessed by impoverishment of fish productivity) could be the reason of pelicans to find new water sites for living. However, the finding of specimens in other water sites (as Dumrea lakes) not automatically corresponds to the existence of better conditions than in Karavasta. In fact, the strong anthropic pressure on Dumrea lakes, suggest a cautious interpretation, and the necessity to wait for nesting and/or a more extended population establishment. What can be added is the particularity of high pH values of the water characterizing at least lake Dorbi (up to pH = 10.0, in 2011). Finally, due to the absence of metallic ring and/or of DNA examination, we cannot exclude the arrival of specimens from other Balkan districts.

The Dalmatian Pelican was first seen in the lakes of Dumrea in February 2022 for a week. Initially a pair and later a flock of approximately 20 individuals. The species was observed again in February 2026, with just one individual. Lakes that hosted the pelicans are shallow, karstic, and interested by human activities (even fauna introduction, e.g., Cyprinidae from China).



Photo 1: February 2022 (Dorbi lake)



Photo 2: February 2022 (Dorbi lake)



Photo 3: February 2022 (Dorbi lake)



Photo 4: February 2022 (Dorbi lake)



Photo 5: February 2022 (Marinza lake)



Photo 6: February 2022 (Marinza lake)



Photo 7: February 2026 (Balshi lake)

In conclusion, it appears that Dalmatian pelicans attempt to abandon Karavasta lagoon in favor of better alternatives for their life. Dumrea lakes (not all the more than 100, but only a restricted number) have been selected in a recent past (2022) for such a purpose, but for a short period, and a return in the area (Balshi lake) has been recorded in 2026. The settlement of a new colony did not happened, thus maintaining the species under threatening in present times. For the future, efforts should be done to individuate the provenance of individuals and/or to facilitate their settlement.

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