

A Review of the Status of Pygmy Cormorant *Microcarbo pygmaeus* in Cyprus Following the First Record in 25 Years

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Abstract: This study reports on the status of Pygmy Cormorant in Cyprus, following the first observation of the species since 1999. Notably, this sighting represents the second record of the species from the northern part of the island. The individual was documented at the Agia Eirini reservoir (Akdeniz), a wetland situated between the Kyrenia and Nicosia districts in Northern Cyprus. The same species was observed again at the same location two months after the initial sighting, raising two potential hypotheses: the establishment of the same individual in the area or the arrival of a different specimen which would suggest a tentative expansion of the species' range.

Keywords: Pygmy Cormorant, North Cyprus, first record, vagrant, range expansion.

Küçük Karabatak (*Microcarbo pygmaeus*)'in 25 Yıl Sonra Kıbrıs'tan İlk Kaydı ve Durumunun Değerlendirilmesi

Öz: Bu çalışma, 1999 yılından bu yana ilk kez gözlemlenen Küçük Karabatak'ın Kıbrıs'taki durumu hakkında rapor sunmaktadır. Bu gözlemin, türün adanın kuzey kesiminden ikinci kaydı olması açısından önemlidir. Birey, Kuzey Kıbrıs'ın Girne ve Lefkoşa ilçeleri arasında yer alan Agia Eirini sulak alanında (Akdeniz) gözlemlendi. Aynı tür, ilk gözlemden iki ay sonra aynı yerde tekrar gözlemlendi ve bu durum iki olası hipotezi gündeme getirdi: Aynı bireyin bölgede yerleşmesi veya türün yayılım alanının geçici olarak genişlediğini düşündürecek farklı bir örneğin gelmesi.

Anahtar kelimeler: Küçük Karabatak, Kuzey Kıbrıs, ilk kayıt, nadir, dağılım genişletme.

The Pygmy Cormorant *Microcarbo pygmaeus* is a member of the Phalacrocoracidae family of seabirds listed as Least Concern by the IUCN with an increasing population trend (BirdLife International, 2019). The species' distribution range extends from south-eastern Europe to south-western Asia with the highest breeding densities concentrated in the Danube Delta and Black Sea (Schogolev *et al.*, 2005; BirdLife International, 2024).

In Cyprus, the species is considered as a vagrant or formerly scarce and irregular passage migrant and winter visitor with the nearest resident population in Turkey from where most individuals are presumed to have migrated (Flint & Richardson, 2024). The first record on the island dates from late August 1982, with two individuals found at Phasouri/Akrotiri reed-beds (Flint & Stewart, 1992). Since then, there have been just over 20 records, comprising a total of 38 different birds (Colin Richardson pers comm). The most recent record was of two individuals at Evretou Dam on 2 September 1999. The onset of these occurrences aligns with a significant increase in the construction of fish-stocked dams, where the vast majority of sightings have been observed (Flint & Richardson, 2024).

The species' breeding population suffered a dramatic decline during the 1950s and in the following decades (Ławicki *et al.*, 2012). This reduction was particularly pronounced in Turkey during the 1990s, coinciding with the last recorded observation in Cyprus, after which there was a prolonged absence of sightings.

On 16 April 2024, a team from the "Cyprus Wildlife Research Institute (CWRI)", established under the NGO

Taşkent Nature Park, identified an individual of Pygmy Cormorant during their monthly census at the Agia Eirini (Akdeniz) reservoir (35°15'25"N, 32°59'18"E). This site is an artificial wetland located between the districts of Kyrenia and Nicosia in the western part of Northern Cyprus (Fig. 1) and it is included in the list of regularly visited areas as part of the Monitoring Project for Wetland Birds, developed by CWRI, which spans Northern Cyprus.

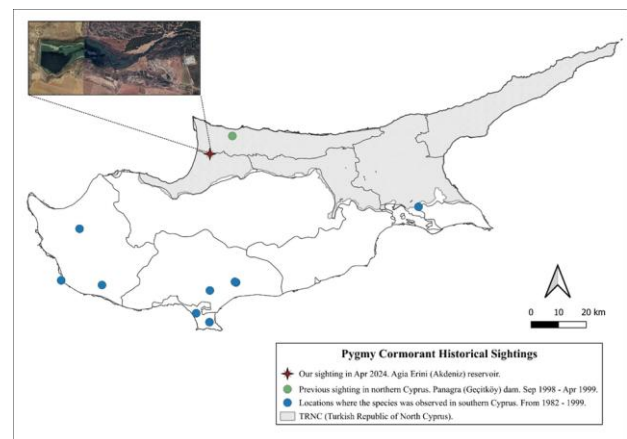


Figure 1. Locations where the Pygmy Cormorant has been observed in Cyprus and the satellite view of Agia Eirini (Akdeniz) reservoir.

This observation was made at 10:35 a.m. under favorable weather conditions (calm, clear, and 27°C). It lasted approximately 45 minutes, ending at 12:15 p.m. During this time, the individual remained perched on a branch, turning and grooming its plumage, until it

eventually took flight and disappeared into the reedbeds (Fig. 2). Based on its plumage, it was most likely a juvenile as in comparison with an adult, a more brownish plumage can be observed in general with a whitish chin and a duller, paler belly (Orta *et al.*, 2020). After this encounter, the team and other birdwatchers revisited the site on consecutive days but were unable to find any further trace of the species.



Figure 2. Photographs from the Pygmy Cormorant's first sighting. Image a) Individual perched on a branch. Image b) Individual in-flight crossing the reservoir.

Two months later, on 9 July 2024 a Pygmy Cormorant was found again at the same reservoir at 07:15 a.m. The observation lasted two and a half hours until the census was completed at 9:40 a.m. The bird took several short flights and appeared comfortable in its environment displaying diving and swimming behavior for quite some time.

During this observation, the plumage characteristics differed from those noted in April. Various features were evident, some of them characteristic of juveniles and others more typical of adults. The wing coverts displayed numerous small white dots along the feather edges, possibly indicative of retained juvenile plumage. Additionally, moulting and the development of adult flight feathers were apparent. The overall body coloration appeared more brownish, resembling that of a juvenile bird, though the throat and breast were not as light as observed in April (Fig. 3). These characteristics suggest that the individual may be in a transitional stage between juvenile and adult that is typical for this species until reaching sexual maturity at 3 to 4 years of age (BirdLife International, 2019).

On 11, 12, and 23 July, 8 August, and 4 September 2024, the same individual was spotted again exhibiting

similar behaviors to those noted during previous sightings.

This new record of Pygmy Cormorant on the island, after a remarkable absence of 25 years, represents the second historical sighting of this species in Northern Cyprus and its first photographic documentation. The fact that this exceptionally rare species was observed in Cyprus on two separate occasions, two months apart, suggests two plausible hypotheses.



Figure 3. In-flight image of the Pygmy Cormorant spotted in July. Note that several primary feathers are missing and a few white spots on the shoulders, indicating the individual is undergoing a summer moult.

The absence of observation during May-Jun can be explained, firstly, by either a lack of ornithological activity in the area or the bird's concealment among the dense vegetation during census days. During this period, the bird may have been undergoing a moulting process, possibly being in an intermediate state (as shown in Fig. 3). Alternatively, it is possible that two different individuals were observed during this time. This scenario would imply two new different sightings of this species occurred within a two-month period – a relatively short time frame for such a rare species – and within the same vicinity.

In either case, this is of great interest as it may indicate a tentative expansion of the species' range and potentially lead to an increase in future sightings in Cyprus as seen in the 1990s (Flint & Richardson, 2024). This possibility could be related to the findings of Ławicki *et al.* (2012) that suggest a recovery and increase in the breeding population in southern and south-eastern Europe. Additionally, this trend may be supported by observations in nearby regions such as Egypt which had its first historical sighting in 2022, the Jordan Valley with its first sighting in 20 years in 2018, and Kuwait which recorded its 3rd historical sighting in 2013, among others (Blair *et al.*, 2024).

These observations are truly significant and highlight the importance of continued monitoring efforts. Whether they reflect a single bird's behavior or indicate a broader trend, ongoing research is crucial for understanding the species' presence and status in Cyprus.

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