Population monitoring and management

Plovers under pressure: assessing the role of tourism and dune management in the nest site of Algerian coast

Bakhouche, Badis¹; Boulaouad, Belkacem Aimene²; Djemadi, Imed³; Rezouani, Imad Eddine⁴; Selmane, Chabani¹; Dino, Scaravelli^{5*}

- ¹ University of Science and Technology Houari Boumediene, Department of Ecology and Environment, Algiers, Algeria
- ² Mohamed el Bachir el Ibrahimi University, Department of Agronomy, Bordj Bou Arreridj, Algeria
- ³ Environment Research Center, Environment and Biodiversity Division, Annaba, Algeria
- ⁴ École Normale Supérieure de Kouba, Laboratory of Eco-Biology Animals (LEBA), Kouba, Algeria
- ⁵ University of Bologna, BIGEA Department, Bologna, Italy
- * dino.scaravelli@unibo.it

DOI: 10.20315/evmc.2025.124

Plovers are considered a group of endangered species globally and particularly in the Mediterranean area. Their location of nests in dunes and open lands makes them not only easily attacked by predators but, above all, make them sensitive to the ever-increasing use of this particular environment by humans. To verify the state of conservation of these species and in the context of studies aimed at clarifying the reproductive success and behaviour of *Caradius* species in coastal areas of Algeria, we have been monitoring for several years (with classical techniques) the presence of nests and the success of nesting in the Le Sablettes sites in Algiers. The species recorded were Kentish plover (*Anarhynchus alexandrinus*; KP) and little ringed plover (*Caradius dubius*; LRP).

The difference in the number of nests found during the covid-19 period, when the beaches were not frequently visited by people, and what was subsequently detected, is very significant. In 2020, in Promenade des Sablette 15 KP and 18 LRP plover nests were recorded, and in 2021 those figures were 22 for KP and 24 for LRP, respectively. Unfortunately, in 2022 only 9 nests were found of the two species that have been abandoned following intensive "development work" carried out without any preassessment of its consequences. Only 2 KP nests were saved thanks to an early hatching, i.e., before the start of the works. In 2023, tourists started to intensively use the area and we were able to find only 5 nests of KP that were unfortunately predated by gulls. Tourist attendance, now very intense after the "modernization" of the area, increases the pressure over the nests, and adults move away due to disturbance, increasing the risk of predation and thermal imbalance.

Proposals have been suggested for the conservation of the oviposition sites and in particular the maintenance of non-frequented areas, but with poor results at the moment. The lack of sensitivity and surveillance are the elements most influential on the disturbance, and the associations and researchers are engaging with the respective local authorities not only by counting/monitoring but also by raising awareness *in situ* as well as in the press, trying to stop the rapid decline of both studied species.

