

# Past and Present Breeding Distribution of the Alpine Chough (*Pyrrhocorax graculus*) in Western Stara Planina and Western Predbalkan Mts. (Bulgaria)

Georgi P. Stoyanov<sup>1\*</sup>, Teodora Ivanova<sup>2</sup>, Boyan P. Petrov<sup>3</sup>, Antoaneta Gueorguieva<sup>4</sup>

<sup>1</sup> Birds of Prey Protection Society, 40, Vassil Levski Blvd., Sofia 1142, Bulgaria; E-mail: georgips@abv.bg

<sup>2</sup> Bulgarian Society for the Protection of Birds, Sofia 1111, P.O.Box 50, Bulgaria; E-mail: tea\_ivanova@yahoo.com

<sup>3</sup> National Museum of Natural History, 1, Tsar Osvoboditel Blvd., Sofia 1000, Bulgaria; E-mail: boyanpp@nmnh.bas.bg

<sup>4</sup> Bat Research and Protection Group, Bulgaria; E-mail: mrilep13@hotmail.com

**Abstract:** The paper reviews all published and original data on the past and present breeding distribution of the Alpine Chough (*Pyrrhocorax graculus*) in NW Bulgaria. Between 1950 and 1981, 77 breeding sites were known. At that time the colonies often consisted of tens of breeding pairs. Vertical distribution started at ca. 300 m a.s.l. (vill. Dolno Ozirovo) and reached ca. 2000 m [summits of Kopren (1964m) and Tri Chouki (1938 m)]. Later, between 1982 and 1995, Alpine Choughs were found to breed in only 24 sites (decline with 53 sites). The species has been virtually extinct from large breeding areas known in the past. The overall number of birds in the studied areas followed reduction of the species range: 3 colonies with 11-15 pairs, 8 colonies with 6-10 pairs, 3 colonies with 3-5 pairs and 10 sites with 1-2 breeding pairs. Between 1996 and 2006, we proved its breeding in 14 sites only. In this period, the species did not breed in the karstic hills “glami” in the region of Belogradchik town and it became rare in Ponor and Vrachanski Balkan Mts. The total number of breeding pairs declined significantly. We established 7 sites with 1-2 pairs, 5 sites with 3-5 pairs, 2 sites with 6-10 pairs. There were no longer sites with more than 10 breeding pairs.

We presume that the major reason for the population decline is the habitat change within the species' main feeding areas. Former open grasslands hold by the extensive cattle breeding has grown up with scrubby vegetation. Other possible reasons are the global warming at a local scale and accumulation of pesticides and heavy metals in the mountain soils. Animal predation, heavy rains, shooting and human disturbance are pointed as possible complementary reasons for the decline.

**Key words:** Alpine Chough, breeding distribution, Western Stara Planina, Western Predbalkan, Bulgaria, limiting factors.