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CARRION CROW *CORVUS CORONE* BREEDING IN LUBUSKIE PROVINCE, W POLAND

ABSTRACT

In 2013, a clutch of the Carrion Crow *Corvus corone* was recorded in the Warta Mouth National Park, western Poland. In April and the first half of May a female incubating two and later four eggs was observed. In mid-May the nest was found empty, indicating that the failure occurred during incubation or the early nestling stage. No male was observed until that time. However, two Carrion Crows were recorded near the nest after the breeding failure, which indicates that it was indeed a breeding attempt made by a homogamic (“pure”) Carrion Crow’s pair. This is the first case described for the Lubuskie Province and the second for Poland in the last 200 years.

Until recently, the Carrion Crow *Corvus corone* and the Hooded Crow *Corvus cornix* were considered two forms of the same species, but evidence such as differences in colour, assortative mating and decreased survival of hybrids suggests that they are indeed separate species (Knox et al. 2002, Parkin et al. 2003). In Europe, there is a secondary zone of hybridization, extending from Ireland through Scotland, Denmark, Germany, the Czech Republic, Austria, Italy and along the Alps to the Mediterranean Sea (Saino and Villa 1992, Houston 1997, Haas and Brodin 2005).

Because of the rarity as well as difficulty in identification due to similarity to young rooks *Corvus frugilegus*, the presence of the Carrion Crow in Poland is still poorly documented (Żurawlew et al. 2010). The closest regular breeding sites of the species are located in Germany and the Czech Republic (Stastny et al. 2006). Therefore, most cases of certain or probable Carrion Crow breeding sites and observations of non-breeding or hybrid individuals (91%) in Poland were recorded in the western part of the country (Żurawlew et al. 2010). One of the areas located in this region and characterized by suitable habitat for crows is the Warta Mouth National Park (Zduniak 2005). During regular studies on the breeding biology and ecology of the Hooded Crow, conducted in the western part of the park in 2000-2005 and 2011-2012 (Zduniak et al. 2008, Zduniak

2009, 2010), single Carrion Crows were observed several times. However, only in 2013 the first clutch of this species was found. On 22 April during a routine nest visit, an incubating female was observed (nest location 52°34'35.0" N, 14°41'32.3" E) which left the nest after the observer approached to within a few meters. The nest contained two eggs. A second control on 1 May revealed four eggs, and the incubating bird left the nest already at about 100 meters from the approaching observer. During three further visits in May, the following observations were made: 10 May – one bird left the nest which still contained four eggs; 15 May – no birds in the vicinity of the nest, no eggs or nestlings; 22 May – two birds staying near the nest. Assuming that the first egg was laid on 21 April, we can conclude that the nest failure occurred during incubation or the early nestling period. Probably the failure was connected with unfavourable food conditions occurring in that breeding season in the study area, caused by a high water level, which also lead to nest failures in the studied Hooded Crow population.

The described clutch probably belonged to a pair of 'pure' Carrion Crows. Unfortunately, during the first visit a male was not observed near the nest and the incubating female. However, subsequent observations of two carrion crows a few days after the nest failure suggests that the Carrion Crow female was not paired with a hybrid or Hooded Crow male and, therefore, the clutch was not initiated by a "mixed" pair. Similar situations, i.e. a pair staying near the nest after a breeding failure, were often observed in the studied Hooded Crow population. This spatial behaviour is most likely caused by the limited possibility to change the territory in the middle of breeding season and by the chance to start a replacement clutch.

Until 2013, about 20 observations of one or two Carrion Crows were recorded year-round in the vicinity of the Warta Mouth National Park (Żurawlew et al. 2010, pers. data). Some spring observations were made in the Lemierzyce area (24.04.2008 and 16.06.2008), where a Carrion Crow was observed to be paired with a Hooded Crow (observer: J. Udolf), and in the Przyborów area near Słońsk (12.05.2012 and 18.05.2012), where one and two Carrion Crows, respectively, were recorded (pers. data). These observations may suggest that breeding attempts in the Warta Mouth National Park and its adjacent areas were already made in previous years. Until 2013, in Poland only one clutch of Carrion Crows was recorded (in 1890 near Świdnica; Kollibay 1906). So far, ten sites with mixed pairs Carrion Crow / Hooded Crow have been reported and, in some cases, respective broods were observed for several subsequent years (Żurawlew et al. 2010, Avifaunistic Commission 2011). One such case was also noted in the Lubuskie Province in 1988 near Skwierzyna (Żurawlew et al. 2010).

The described case of a pair of Carrion Crows breeding in the Warta Mouth National Park in 2013 is the first respective documented observation in the Lubuskie Province and one of the few recordings within the current Polish borders in the last 200 years (Żurawlew et al. 2010). Assuming that both male and female were indeed Carrion Crows, as indicated by our observations, it can be concluded that the recorded

breeding constitutes only the second such case in the country and the first in the last two centuries.

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