(Invasive) alien vertebrates

Sacred or unholy? Assessing the impact of sacred ibis (*Threskiornis aethiopicus*) on heronries in northern Italy

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Sacred ibis (*Threskiornis aethiopicus*) has been listed as an invasive alien species of European concern since 2016. Despite clear management responsibilities, actual knowledge of its impacts is still dubious and fragmented. Due to delayed management measures adopted in Italy, sacred ibis populations have grown largely undisturbed since the 2000s, now providing a unique opportunity to examine the consequences beyond the early stages of invasion. Breeding ecology of the species in the Italian nesting core area (Po plain) has been studied. Moreover, interactions with the native fauna were assessed within the mixed heronries colonies, where sacred ibis breeds in proximity of protected species, through the use of various monitoring techniques.

Direct observations and camera trap footage show that sacred ibis has no interest in preying neither eggs nor nestlings of neighbouring colonial species. Experiments with artificial nests containing various egg types provided analogous results. Sacred ibis displayed only partially hostile behaviour, limited to stealing nest material from nearby herons. Additionally, ground-nesting sacred ibises suffered high levels of predation by other birds (e.g. jackdaw, herring gull) and mammals (e.g. red fox, European badger). Overall, this study does not support the alleged role of sacred ibis as an invasive predator, which has been however proven elsewhere (France).