Scientific name | Threskiornis aethiopicus
--- | ---
Common name | Sacred ibis
Broad group | Vertebrate
Number of and countries wherein the species is currently established | 6: FR, IT, NL, PT, ES, GR
Risk Assessment Method | GB NNRA

1. **Description**  
(Taxonomy, invasion history, distribution range (native and introduced), geographic scope, socio-economic benefits)

   Socio-economic benefits: Sacred ibises are kept in zoos (Clergeau & Yésou, 2006, Smits et al., 2010, Topola, 2014) and other collections, thus generating some revenue for zoos and pet trade. The ISIS database roughly estimates that there are approximately 1170 individuals kept in 101 European institutions (ISIS, 2014). The species may have an aesthetic appeal to bird-watchers and members of the wider general public (Avifaunistic Commission - the Polish Rarities Committee, 2013).

   In France, Sacred Ibises have been documented consuming invasive Red swamp crayfish *Procambarus clarkii* (Marion, 2013), thus possibly reducing impact of this species upon biodiversity and economy.

6. **Can broadly assess environmental impact with respect to ecosystem services**

   Provisioning services: Sacred Ibises have a broad dietary range including species that might be reared for human consumption (Clergeau et al., 2010).

   Fisheries - Sacred Ibises are omnivorous, but largely predatory, with a diet that includes fish and molluscs. Sacred Ibises, therefore, could be an additional predator at fisheries (Clergeau et al., 2010).

   Regulating services: Further impacts are associated with public health issues arising from the species scavenging behavior (Yésou & Clergeau, 2005).

   Disease regulation - Sacred Ibises could cause nuisance or environmental health concerns by scavenging from rubbish bins in areas of human habitation; as has happened in France (Clergeau & Yésou, 2006). It is
possible that they may also carry disease which could be harmful to poultry, native fauna and humans.

Sacred Ibises are omnivorous, but largely predatory, feeding on amphibians, crustaceans, small rodents, molluscs, fish, earthworms, insects and the eggs and chicks of other bird species (Cramp et al., 1983, Robert et al., 2013c) and may therefore threaten native fauna of these types. Sacred Ibises can have serious impacts on other bird species due to predation of eggs and chicks. Colonial-nesting species such as terns and seabirds are particularly vulnerable. In South Africa, where they are native, predation of eggs and chicks has been shown to be one of the most serious causes of mortality in seabird colonies.

With the current information, no estimates of the extent of the ecological impact of the Sacred ibis can be made with adequate certainty (Smits et al., 2010). In France Sacred Ibises have been recorded to predate the eggs or chicks of a wide range of bird species including Sandwich tern (Sterna sandvicensis = Thalasseus sandvicensis) included in Annex I of the 2009/147/EC Birds Directive (Clergeau et al., 2010, Clergeau & Yésou, 2006, Vaslin, 2005). In one incident, two Sacred Ibises were recorded to take all the eggs from a 30-nest Sandwich Tern colony in a few hours, causing the terns to desert the colony for the rest of the season, and similar incidents have been recorded with other tern species (Yésou & Clergeau, 2005). Another Annex I species affected by Sacred ibises is Little egrets (Egretta garzetta) that can be outcompeted for nest sites (Kayser et al., 2005).

In contrast, a fourteen year study in France reported that Sacred ibis diet was essentially composed of invertebrates, and that vertebrates constituted very accidental preys, and no bird species were really threatened by such predation (Marion, 2013).

In the Netherlands Sacred Ibises have settled already in the Natura 2000-site Botshol and most wetlands with a Natura 2000 status are prone to be colonised (Smits et al., 2010). Vegetation at colonised sites may suffer from eutrophication (Yésou & Clergeau, 2005).

Sacred ibises were introduced to locations colder than their native range and seem to have expanded into even colder areas (Strubbe & Matthysen,
Climate change has the potential to enhance the invasion success of Sacred Ibis through the latter stages of the invasion process (establishment and spread), through: (i) improving the climatic match between its introduced and native range and (ii) through direct (e.g. thermal effects) and indirect changes (land management) to habitats and land use. The action of climate warming on the life history traits of such species, however, is not necessarily straightforward. For Sacred Ibis breeding performance is higher in temperate Western France than those estimates published for its warmer native Africa (Clergeau & Yésou, 2006).
| Main experts       | Wojciech Solarz  
|                   | Wolfgang Rabitsch |
| Other contributing experts | Olaf Booy  
|                   | Belinda Gallardo  
|                   | Leopold Füreder  |

### Notes

In how many EU member states has this species been recorded? List them.
7 – FR, IT, NL, PL, PT, ES, GR

In how many EU member states has this species currently established populations? List them.
6 (from table)

In how many EU member states has this species shown signs of invasiveness? List them.
3 – FR, ES, IT

In which EU Biogeographic areas could this species establish?
Most likely the Mediterranean and Atlantic Coast, but possible in other regions except alpine and boreal.

In how many EU Member States could this species establish in the future [given current climate] (including those where it is already established)? List them.
Most likely the Mediterranean and Atlantic Coast, but possible in other regions except alpine and boreal.

In how many EU member states could this species become invasive in the future [given current climate] (where it is not already established)? List them.
Most likely to become invasive in Mediterranean and Black Sea (i.e. Spain, Portugal, Italy, Greece, France, Republic of Cyprus, Croatia, Malta, Bulgaria, Romania)
Potential to establish in:
Austria, Belgium, Czech Republic, Denmark, Germany, Hungary, Ireland, Luxembourg, Netherlands, Poland, Slovakia, Slovenia and the UK.

Unlikely to establish in:
Sweden, Estonia, Finland, Latvia, Lithuania.

| Outcome | Compliant |