

The alien Chinese Cormorant *Phalacrocorax carbo sinensis* (Blumenbach, 1798), a threat to the biodiversity in Europe

Ever since the 1992 United Nations Conference on Environment and Development, also known as the Rio conference, adopted the Convention on Biodiversity (CBD), biodiversity has become an often used concept. The concept is an expression for the commendable ambition of conserving the indigenous flora and fauna in a geographical area, but has now become more of a mantra within environmental policy.

The CBD, which was ratified by the EU and Sweden in 1993, involves a commitment to formulate strategies to predict, prevent and tackle the causes of a significant reduction in or loss of biodiversity. According to the CBD, one of the most serious threats to the biodiversity constitutes Invasive Alien Species (IAS), i.e. species, sub-species or taxa of lower rank that have been introduced intentionally or unintentionally. The increasing problems with IAS in Europe caused the European Commission to adopt a biodiversity strategy in May 2011. One of the strategy's prioritised targets for the year 2020 is to ensure that: "Invasive Alien Species and their pathways are identified and prioritised, priority species are controlled or eradicated and pathways are managed to prevent the introduction and establishment of new IAS".

The European Commission's fatal mistake

There is a long history of endeavouring to conserve the biodiversity in Europe. With this in mind, the Commission established "the Bird Directive" (79/409/EEC) on 2 April 1979, which has been of substantial significance to the conservation of the European bird fauna. Regrettably, the Commission made a fatal mistake in adding the Chinese Cormorant, also called the Lesser Great Cormorant, *Phalacrocorax carbo sinensis* (Blumenbach, 1798) (*sinensis*), on the list in Annex I to the Bird Directive and thus the object of special protection measures in the then nine Member States. This seemingly insignificant decision, the scientific grounds for which were not shown, has instead had catastrophic consequences for the biodiversity in Europe, and particularly for the fish fauna. The problems have also increased in line with the exponential increase and expansion of *sinensis* over the past decades, with the number of individuals now amounting to several million. This has primarily been noticed by the fisheries' representatives, who have demanded that the Commission take action.

Instead of action and an open scientific discussion on the biological background to the problems caused by *sinensis*, the Commission chose to finance two projects to solve "the conflict between the cormorant and fisheries". The projects were called REDCAFE (Reducing the Conflict between Cormorants and Fisheries on a pan-European scale, 2000-2004) and INTERCAFE (Interdisciplinary Initiative to Reduce Pan-European Cormorant-Fisheries Conflicts, 2004-2008). INTERCAFE has not yet delivered a final report four years after the end of the project.

The continuously increasing problems with *sinensis* plus a total lack of concrete measures led the EU Parliament on 4 December 2008 to demand that the Commission must immediately formulate a "European Cormorant Management Plan to minimise the increasing impact of cormorants on fish stocks, fishing and aquaculture". The Commission rejected the demand and instead initiated one further "conflict" project. The project is called CorMan ("Sustainable Management of Cormorant Populations") which launched the EU Cormorant Platform on DG Environment's website on 15 December 2011 "to disseminate information about cormorants, cormorant numbers, management and conflicts related to cormorants, fish, fisheries and aquaculture".

A conflict between belief and science

What the Commission describes as “a conflict between the cormorant and fisheries” appears more and more as a conflict between belief and science, and particularly within taxonomy and biogeography.

The Commission’s belief that it is the “Cormorant” or “Great Cormorant” that is causing the problems shows a striking lack of scientific competence. As early as 200 years ago, it was obvious to several prominent ornithologists that the bird described by Linné in 1758 and given the name *Pelecanus Carbo*, “the black pelican”, was actually two different birds. Both C.L. Brehm in Germany and Sven Nilsson in Sweden described the presence also of a smaller form of cormorant at the start of the 1800s. This was analysed in detail by one of Europe’s most distinguished ornithologists, Ernst Hartert, almost 100 years ago in an essay “ON THE EUROPEAN FORMS OF *PHALACROCORAX CARBO*” (NOOVITATES ZOOLOGICAE XXIII, 1916). Hartert concludes his essay with the following statement: “We must thus clearly separate two European forms of Cormorants as follows:

- *Phalacrocorax carbo carbo* (L.) ---

-*Phalacrocorax carbo subcormoranus* (Brehm)”

(According to the International Commission on Zoological Nomenclature (ICZN)’s priority rule, the latter-mentioned taxon’s scientific name, is now *Phalacrocorax carbo sinensis* (Blumenbach, 1798), my note.)

Fundamental to all biological science and all work with the CBD and IAS is the correct identification of the organism studied - in short, the correct taxonomy. It is now an obvious fact that the taxon causing problems and constituting a serious threat to the biodiversity in Europe is the Chinese Cormorant *P.c. sinensis* (Blumenbach, 1798) and not the indigenous, North Atlantic Great Cormorant *P.c. carbo* (L., 1758) which, on the contrary, is exposed to a serious genetic and ecological threat by the aforementioned. The Commission’s current lack of knowledge is even more remarkable since it evidently already knew of *sinensis* in 1979 when it gave this taxon a special protection status.

The scientific study of the distribution of organisms in time and space, biogeography, is also fundamental to the work with the CBD and IAS. The Commission persists to believe that *sinensis* has a long natural historical presence in Europe, in spite of no scientific proofs in the form of cultural historical artefacts or sub-fossils. Of the thousands of archaeological finds of “cormorant bones” throughout Europe, there has not been one single definite find of *sinensis*. However, this does not prevent the Commission under the FAQ heading on the EU Cormorant Platform from dismissing the suspicion put forward from several sources that “..the *sinensis* sub-species is not a native bird in Europe but an ‘alien’”, with “There are a large number of pre-historic records of cormorants in the Baltic region suggesting that the species did breed here in pre-historic times. However, at present, most indications are that these cormorants belonged to the subspecies ‘*carbo*’.” The Commission obviously believes that an evidence of a prehistoric presence of *sinensis* in Europe can be made up of finds of *carbo*!

From worthy of protection to an invasive alien species

The Commission also ignores the very alarming fact that *sinensis* is not just a threat to the European fish fauna - *sinensis* is an opportunistic feeder and eats all types of aquatic animals, from marine polychaete worms and crayfish to frogs and young birds. Particularly alarming is the increasing number of independent observations of predation on young eider ducks, goosanders and other species of the indigenous European bird fauna.

Nor does the Commission acknowledge the evident risks to the biodiversity through the fact that *sinensis* is a particularly effective vector for pathogenic viruses, bacteria and a large number of fish parasites. A particularly serious threat is roundworms of the genus *Contracaecum* and tapeworms such as *Paradilepis scolecina*. Some of the species are also host-specific and therefore very useful indicators of the host animal's geographical origin.

A necessary paradigm shift in environmental policy

In spite of a constantly increasing number of facts indicating that *sinensis* should not be protected but on the contrary be classified as an IAS, the Commission continues to use the EU Cormorant Platform to cover this self inflicted crisis by disseminating erroneous facts and actively protecting one of the single most serious threats to the biodiversity in Europe.

Instead of a thorough analysis of all of the facts that support this necessary paradigm shift in environmental policy, the Commission has first of all met them with silence, and is currently stating that they are incorrect without presenting any scientific evidence.

Instead of immediately formulating and implementing concrete actions in accordance with the CBD to reduce the damage caused by *sinensis*, the Commission intends to use CorMan to implement meaningless "pan-European counts of cormorant colonies in 2012 and of wintering cormorants in January 2013", in spite of the well-known fact that the number of *sinensis* in Europe now amounts to several million when the number of individuals of an IAS should be zero according to the CBD!

Instead of plain language, the EU Cormorant Platform is serving up gobbledygook, the Commission's own variation of drivel. Instead of scientifically proven facts, the Commission is offering environmental policy-orientated disinformation and myths. The EU Cormorant Platform should therefore immediately be the object of an independent scientific investigation.

It is perplexing that Birdlife International, which is part of CorMan's Liaison Group with several scientifically qualified ornithologists and extremely knowledgeable amateur bird enthusiasts, has neither pointed out the errors nor drawn any attention to the threat that *sinensis* constitutes to the indigenous European bird fauna.

The EU Commission before the EU Court

The Commission's flagrant breach of the CBD with regard to *sinensis* and the resulting major damage to the biodiversity in Europe should immediately be the subject for a legal trial at the EU Court by some of the many stakeholders bringing a case against Mr Potočník, the Commissioner for the Environment.

It is therefore extremely surprising that not even the European environmental movement's powerful umbrella organisation, the European Environmental Bureau, or any of its members, who rarely pass up an opportunity to report a breach against the CBD to the Commission or threaten with the EU court, has failed to report the Commission in this matter.

It is about time for the Commission to comply with Article 8(h) of the CBD, "Prevent the introduction of, control or eradicate those alien species which threaten ecosystems, habitats or species" and the Commission's own biodiversity strategy and immediately undertake necessary measures against the invasive alien Chinese Cormorant *Phalacrocorax carbo sinensis* (Blumenbach, 1798) so that these measures can be concluded by 2020.

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