

The EU and the Chinese Cormorant *P.c.sinensis*; from specially protected to an invasive alien species of Union concern

Nobody with a minimum of interest in nature and functioning senses of sight, smell or hearing can have failed to notice an increasingly apparent inhabitant of Europe's coasts, lakes and watercourses. From Cabo de Sao Vicente in the south west and Lesbos in the south east to the Gulf of Bothnia in the north, the Chinese Cormorant *Phalacrocorax carbo sinensis* (***sinensis***) is a more and more common sight and in many areas the dominant aquatic bird. From a few thousand individuals in 1979, the number has increased to several million today. According to bird protection organisations and authorities, this is a major success of European bird protection and the EU's Birds Directive (**79/409/EEC**) that ***sinensis*** "has **returned** after a long period of persecution". Like many others not being able to avoid observing the devastating effect of ***sinensis*** on the local fish fauna and the dead trees on the foul-smelling nesting islands and resting places, I was puzzled by this "**return**" since there were no records of any previous nesting. In my home area the Stockholm archipelago, the first documented nesting was in 1994. Today there are around 20 colonies with approximately 50,000 individuals. First in August 2002 it struck me that "**they've never been here before!**" This was the start of my attempts to sort out the mess of contradictory information and statements that dominated the extremely confusing and heated cormorant debate which has been going on in Europe for almost 400 years.

In 2008 I wrote an essay, "***The Chinese Cormorant Phalacrocorax carbo sinensis (Blumenbach 1798) an alien bird***", which presented the information I had found together with a synopsis of a historical narrative and some suggestions for actions. My hope was to stimulate more people to elucidate the European history of ***sinensis***. The essay was first met with deafening silence, followed by a series of critical articles by agitated bird protection activists in bird magazines and newspapers. Examples are Engström/Wirdheim, *Vår Fågelvärld*, 2009; Kinzelbach, *Der Falke Sonderheft*, 2010; Bieke, *Die Vogelwelt*, 2012; Bieke, Herrmann, Kinzelbach & de Rijk, *Die Vogelwelt*, 2013; Bieke, *Ornis Fennica*, 2014; Blomqvist, *Österbottens Tidning*, 2016; and Philström/Fritzén, *OA-Natur*, 2017. The list can, and undoubtedly will, be made longer. I was either mentioned directly by name or only indirectly through my conclusions; "dass der Kormoran eine aus China eingeschleppte invasive Art und als solche zu bekämpfen sei" (Beike et al., 2013), which, together with the damage to the fish fauna is the core issue of the European cormorant debate. After having carefully read the articles and checked the references, I have commented on them in a variety of ways. My opinion that ***sinensis*** is an alien bird in Europe remains. Nor have my further studies found any

scientific evidence for pre-mediaeval nesting of *sinensis* in Europe. However, it may be appropriate to comment on some of the statements in the articles. They share an inability to consistently separate *sinensis* from the naturally occurring European Great Cormorant *Phalacrocorax carbo carbo* (*carbo*). For instance it is stated that finds of subfossils labelled *P.carbo* and older information about “colonies of birds nesting in trees” in Europe “further than 100 km” from the current coastline must be *sinensis* as the European Great Cormorant (*carbo*) is a “marine bird that nests on cliffs along the coast”. This is unscientific nonsense. *Carbo* is not “marine” and prefers, just like *sinensis*, to nest in trees, requiring above all waters rich in fish regardless of salinity. After the last ice age *carbo* was widespread across large parts of Europe, but now nests primarily on inaccessible parts of the coast in France, the British Isles, Norway and Iceland. One of the reasons is that nestlings were an important element of the human diet from the Stone Age and therefore one of the most common birds finds in archaeological excavations.

Regardless from where in Europe one attempts to follow the historical distribution of *sinensis*, the trail ends in mediaeval Netherlands, coinciding in time and space with the beginning of the “Golden Age” and the rapidly expanding world trade with exotic plants and animals. When the first free living *sinensis* colonies were established in waters near Rotterdam in the early 1600s, local fishermen quickly noticed the negative impact and took countermeasures, under protests from the bird protection activists at that time. From the 1600s and the main part of the 1700s, there are only records of a few free living colonies in the Netherlands and countries nearby. The first major wave of expansion took place in the early 1800s via Germany and Denmark to Scania and Blekinge in southern Sweden. Most of the colonies were then eradicated so thoroughly that the distribution in Western Europe in the 1900s was once again limited to the Netherlands and a few sites in Germany and Poland, and *sinensis* was from the early 1970s both “threatened and persecuted”. Several of the early 19th century’s leading ornithologists were puzzled by the sudden appearance of a considerably smaller form of cormorant than the well-known European Great Cormorant (*carbo*). For J.A. and J.F. Naumann (1842) it was “a mystery”; nor did C.L. Brehm (1824) succeed in completely elucidating the taxonomy, but described it as close to *carbo* and gave it the epithet *subcormoranus*. A similar approach was taken by S. Nilsson (1835), who gave it the epithet *medius*. Almost a century later, other leading ornithologists, such as E. Lönnberg (1915) and E. Hartert (1916), carried out taxonomic analyses of the differences between *carbo* and *sinensis* (*subcormoranus/medius*) and observed that they were significant, but in the spirit of the time gave *sinensis* the rank of sub-species to the Great Cormorant, *P.carbo*. The taxonomy and nomenclature of *sinensis* are still in major need of a thorough revision and *carbo* and *sinensis* will with great probability, as S.

Nilsson (1858) wrote, “prove to be two species”; an opinion shared by many others, including Alström (1985) and Kinzelbach (2010). However, the epithet *sinensis* appears to have been well chosen, as the first scientific description according to Mlikovsky (2011) can be attributed to Staunton (1796) and the type locality for “*Pelecanus sinensis* to Lake Weishan, Shandong Province, China (c.35°00'N, 116° 50'E), November 1793”. Of course the scientific name and type locality are not evidence that *sinensis* was introduced from China but the vernacular name should once again be Chinese Cormorant.

The first information about *sinensis* in Europe also coincides in time and space with the quickly flourishing, and as quickly fading, interest in fishing with trained cormorants at the English and French courts of the early 1600s. The Dutch had long been Europe’s leading falconers and delivered trained hunting birds of different species to the aristocracy for enormous sums. The Chinese method of fishing with cormorants had long been well known by the educated Europe. The father of European ornithology, “Der Universalgelehrter”, Conrad Gesner, wrote in “Historia Animalium Aves” (1555) of the Franciscan monk Odoric from Pordenone, who during his voyage to China in the 1300s saw with his own eyes fishing with trained cormorants. For several hundred years this book was an ornithological standard work and was quoted and copied by many other authors. Even Linnaeus described the method in “De usu avium” (1765), as did many others, constituting one of many exciting chapters in the historical narrative on *sinensis*.

That bird protection activists, blinded by their love for birds, all times fanatically defended *sinensis* against fishermen and others affected is bad, but not surprising. Worse is that BirdLife Europe and its organisations, with many competent ornithologists, have actively protected *sinensis* without reflecting on its European history. Worst of all, however, is how badly handled the issue has been by the European Commission and the national nature conservation agencies, which are ultimately responsible for the damage caused by *sinensis*; primarily to the biological diversity and fish fauna and secondarily to fishery and other rural activities, at an accumulated cost of several billion euros. The damage is now so extensive and obvious that even the fishery research can quantify it to an ever-greater extent – for example Jepsen et al. (2014) and Ovegård (2017).

It is correct that when the Birds Directive was introduced 1979 *sinensis* was “threatened”, the entire population in Western Europe consisted of a few thousand birds in a few colonies. That the taxon “5. *Phalacrocorax carbo sinensis* Cormorant (continental race)” was added to Annex 1 “of wild birds *naturally occurring* within the member states’ European territory” and in need of special conservation measures, can therefore be considered a reasonable decision. The problem is that there was not one single piece of scientific evidence proving the Commission's

statement that *sinensis* were **naturally occurring in the member states**. As a result of the Birds Directive's protection and the expansion of the EU, the number of *sinensis* increased in less than 20 years to several hundred thousand, forcing that **"The European Commission has decided to remove the Great Cormorant (*Phalacrocorax carbo sinensis*) from Annex I of the Directive on the Protection of Wild Birds." (IP/97/718)** This was a decision of marginal significance, and despite the possibility of so called derogations, the protection of *sinensis* remained so strong that meaningful actions were not possible within the regulations. In the document, the Commission goes from using the taxon's correct name, *P.c.sinensis*, to a more general "the Great Cormorant" or simply "the Cormorant". This is deliberate disinformation and a continued denial of the fact that it is *sinensis* and not *carbo* which, as a result of the Commission's own mistakes and incompetence, has developed from merely **alien** in 1979 to **invasive** in 1997, and in 2017 to be **of Union concern**. The millions of *sinensis* today found in Europe are increasing at an undiminished rate and spreading to new suitable areas within the EU and neighbouring countries. More and more colonies are established in Switzerland, Norway and the countries to the east, and every autumn North Africa is invaded from Morocco to Egypt – and Israel too – by hordes of overwintering *sinensis*.

Instead of a scientific analysis of the background to the growing damage *sinensis* is causing to the European environment, the Commission finances disinformation projects intended to turn a scientific issue into "a **conflict** between **cormorants** and **fishermen/fisheries**". REDCAFE 2003 and INTERCAFE 2004/8-12 and the latest, "the CORMAN project" (Sustainable Management of Cormorant Populations) 2011 on DG Environment's website are all examples of the Commission's denial of the serious nature of the issue and of its lack of judgement. These projects have unswervingly succeeded in avoiding the *sinensis* core issues and constantly dismiss legitimate concerns. They assert that it is not possible to demonstrate any major damages and that the numbers will diminish– which an uncritical media has been reporting ever since 1979.

However, this environmental policy fiasco need not continue and get worse. At last even the Commission has woken up and realized the damage caused by alien species to the European environment and has at least formally created the conditions for strong measures. EU Ordinance 1143/2014 *on the prevention and management of the introduction and spread of invasive alien species (IASs)* gives a legal foundation for preventing, minimising and reducing the negative effects of IASs and jointly combating certain species considered able to cause major damage to biological diversity in the European Union. On the list of **IASs of Union concern** presented by the Commission in 2016, there are already three birds; the Indian

house crow *Corvus splendens*, the Ruddy duck *Oxyura jamaicensis* and the African sacred ibis *Threskiornis aethiopicus*. It falls on the member states' nature conservation agencies to suggest additional species and it appears likely that the Egyptian goose *Alopochen aegyptiaca* will be added to the list in 2017. It is therefore a matter of course that *P.c.sinensis* should immediately also receive an independent, transparent scientific review according to the same criteria by the Scientific Forum on Invasive Alien Species (E03276). The damage caused by *sinensis* to the European natural environment is already significantly greater than that caused in total by the four birds mentioned above. That the Commission will take the initiative for such a review is not to be expected. But of course all citizens in the Union have the right to demand that the issue is examined by the responsible authority in their respective countries – in Sweden, the Swedish Environmental Protection Agency. Sweden has particular responsibility, as it hosts the largest number of nesting *sinensis* in the whole of Europe, and probably in the entire world.

The fact that *Phalacrocorax carbo sinensis* has a gigantic negative effect on Europe's biological diversity and economy, and more than fulfils the criteria for immediate addition to the list of IASs of Union concern cannot be doubted.

And this is an urgent matter. The damage to the European environment and the costs for the affected industries will continue to increase with undiminished speed every day. The costs of the Commission's negligence will sooner or later have to be paid – and the bills will, of course, as usual be presented to the Union's citizens.

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