Final countdown for the Hooded Grebe?

Ignacio Roesler, Hernán Casañas and Santiago Imberti

Updating our article in *Neotropical Birding* 6, three Argentine researchers describe how the latest news from the remote Patagonian breeding grounds of the globally threatened Hooded Grebe *Podiceps gallardoi* is almost depressingly worrying. They reveal that an introduced North American mustelid is just the latest in a series of threats that is potentially taking the species to the brink of extinction.



>> FEATURE FINAL COUNTDOWN FOR THE HOODED GREBE

he Hooded Grebe *Podiceps gallardoi* has been increasingly the subject of conservationists' attention during the last decade. However, when the species was discovered, in southern Patagonia in 1974, Mauricio Rumboll already considered it to be in imminent danger of extinction, due to the Hooded Grebe's small population and because it was restricted to a tiny number of lakes. However, subsequent surveys in western Santa Cruz province, Argentina, revealed a more promising future for the species and by the 1980s the population was estimated at 3,000-5,000 individuals⁴. Nevertheless, several potential threats to its survival were also detected during this period. In the late 1990s, systematic counts commenced, which threw new light on the species' use of estuaries on the Atlantic seaboard as wintering areas, but also rang the first alarm bells concerning a potential decline in numbers3. With this in mind, more comprehensive breeding season surveys were organised, just in time to confirm what was suspected². The surveys generated sufficient data to prompt BirdLife to upgrade Hooded Grebe to Endangered as a result of the alarming negative population change.

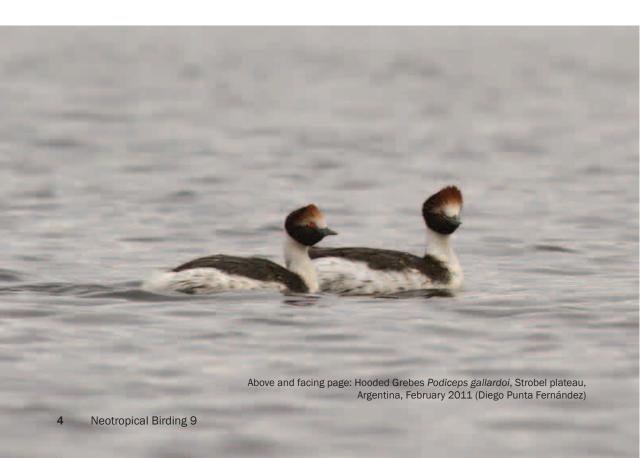
During the most recent austral summer (2010–11) we again monitored the grebe's populations over most of its breeding distribution.

Among our findings, we confirmed a significant decline in numbers at one of the species' formerly most important sites (the Strobel plateau), and discovered that wind action can be a major factor in the destruction of colonies. Furthermore, we surveyed some new, seemingly very appropriate breeding areas, without success, and lastly and most chillingly, we confirmed the presence of a new threat, the introduced American Mink *Mustela vison*. By the end of the summer season, our results are disheartening to say the least.

A new threat

The American Mink is a North American mustelid that has been introduced into several parts of the world, principally in South-East Asia, but also in Patagonia. Until now, the species had not been considered a threat to the grebe because it had not been detected on the high plateaux of Patagonia. However, at a newly visited area of the Buenos Aires plateau, a single individual of this voracious species killed more than half of the adult Hooded Grebes breeding in a colony containing two dozen nests, thereby 'wrecking' one of the very few breeding attempts during the entire season.

Considering that we now estimate the grebe's total population at just c.1,200 individuals, such events represent potentially devastating events



for the remaining grebes. The grebes that were killed were, according to our most recent surveys, among the very few adults actively breeding, and all of them had nests with eggs, thereby not only significantly impacting the current population, but also lowering recruitment rates.

Population trends

As previously mentioned, the population in the 1980s was estimated at 3,000–5,000 grebes. Only 20 years later, we now estimate the total population as being closer to 1,000–1,200 individuals, implying that the species has declined by >50%. We have been unable to definitively establish the impact of different factors affecting the species, nonetheless there are several issues to consider if we are to enact an action plan to save the Hooded Grebe.

One of the most problematic cases is that of the Strobel plateau, which historically was the single most important area for the grebe. During the last austral summer we observed that an increasing number of lakes and lagoons are dry or close to it, due to the alarming lack of snow during the last decade. This situation, combined with the fact that most of the larger waterbodies (which never dry) have been infested with trout, means that suitable habitat for the grebe during dry periods is now at a premium. This provides a vivid example of how a combination of negative factors is the real problem for the Hooded Grebe.

More negative news is that on the Buenos Aires plateau, despite vast new areas being covered, very few grebes were found. We had high hopes for several of the newly surveyed lakes, as they are seemingly very appropriate being among the only waterbodies on the plateau with suitable water levels, but only a handful of grebes was found on them. We are uncertain why grebes were not present at these lakes, but at least in some areas mink might be one of the causes.

One of the most sought-after birds in Patagonia is now even rarer

The precise reasons why the grebes are disappearing are unclear as yet, although several of the 'usual suspects' have been identified during our surveys. The species' rarity is clear as it becomes steadily more difficult to find at sites where two decades ago Hooded Grebe was the commonest waterbird at some lakes. Concern rises when we consider that three other Podicepididae have been











This page, clockwise from top:

One of the largest colonies ever located of Hooded Grebe Podiceps gallardoi, El Sello lagoon, Buenos Aires plateau, Argentina, February 2011 (Kini Roesler)

Sign in front of Escarchados Lagoon; nowadays this lake is completely dry like many other wetlands in southern Santa Cruz province (Santiago Imberti)

Dry habitat on the Buenos Aires plateau (Santiago Imberti)

A lagoon in the north-west part of the Buenos Aires plateau, Argentina, which was surveyed for Hooded Grebe *Podiceps gallardoi* for the first time in March 2011 (Kini Roesler)

Searching for new areas for Hooded Grebe *Podiceps gallardoi* in January 2011 (Santiago Imberti)

Facing page, clockwise from top:

Habitat around El Sello lagoon in March 2011 (Santiago Imberti)

Panoramic view of El Cervecero lagoon, Buenos Aires plateau, Argentina, February 2011; this lagoon held another colony (Kini Roesler)

A Hooded Grebe *Podiceps gallardoi* killed by an American Mink *Mustela vison* on the Buenos Aires plateau, Argentina, March 2011 (Santiago Imberti)









lost in recent decades, including one determined to be extinct as recently as 2010¹. Furthermore, the extinction of these species is strongly related to the introduction of exotic fish is a factor also affecting Hooded Grebe, which might prove crucial in time.

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REFERENCES

1. BirdLife International (2011) IUCN Red List for birds. www.birdlife.org (accessed 5 April 2011).

- Imberti, S. & Casañas, H. (2009) Hooded Grebe (Podiceps gallardoi). In: Schulenberg, T. S. (ed.) Neotropical Birds Online. www.neotropical.birds. cornell.edu/portal/species/overview?p_p_spp=91111 (accessed 5 April 2011).
- Imberti, S., Sturzenbaum, S. & McNamara, M. (2004) Actualización de la distribución invernal de Macá Tobiano *Podiceps gallardoi* y notas sobre su problemática de conservación. *Hornero* 19: 83–89.
- O'Donnell, C. & Fjeldså, J. (1997) Grebes: status survey and conservation action plan. Cambridge, UK: IUCN / SSC Grebe Specialist Group.

IGNACIO ROESLER

Departamento de Ecología, Genética y Evolución, UBA & CONICET. E-mail: kiniroesler@gmail.com

HERNÁN CASAÑAS AND SANTIAGO IMBERTI

Asociación Ambiente Sur, Rivadavia 780, 9400 Río Gallegos, Santa Cruz, Argentina & Aves Argentinas / Asociación Ornitológica del Plata, Buenos Aires, Argentina.