

FEW AND FAR BETWEEN

Saving the Yellow-crested Cockatoos

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It may be difficult for any parrot enthusiast to imagine that a white cockatoo with a yellow crest could be a critically endangered species, given the abundance of the Sulphur-crested Cockatoo (*Cacatua galerita*). However, while Australia's most iconic parrot species is thriving, one of its closest relatives, the diminutive Yellow-crested Cockatoo (*Cacatua sulphurea*) is in serious decline and now considered one of the world's rarest parrots.

THE FUTURE of the critically endangered Yellow-crested Cockatoo is uncertain. In the past 40 years it has suffered massive population declines, estimated at more than 80%. While its habitat requirements have proven somewhat flexible, its decline is due almost entirely to unsustainable exploitation for trade. Large-scale logging and conversion of forest to agriculture across its range has exacerbated its loss. In fact, on Sumba Island, over the last hundred years, the decline in numbers of cockatoos has paralleled closely the loss of usable habitat. The use of pesticides since 1989 is a further potential threat.

The World Parrot Trust (WPT) joined the ongoing efforts of the Indonesian Parrot Project (IPP), and Konservasi Kakatua Indonesia (KKI), building upon a multi-year collaborative effort to study and conserve the Yellow-crested Cockatoo. Our combined work to save this imperiled species focuses primarily on:

- Field research intended to bring about a better understanding of the species' ecology and how it uses its environment;
- Census work to assess the current number of birds remaining in the wild.
- Educational efforts to reach people in the local populations to both help

them understand the value of keeping these birds in the wild while at the same time engaging them in our work. By educating the local community we hope to help researchers and local park staff to better support the birds.

Staff members from all three organizations contributed to this effort. Most of the work in the wild has been carried out by field staff consisting of Dudi Nandika and Dwi Agustina, researchers from Indonesia, as well as Mehd Halaouate, professional field guide and Indonesia Program Director for the World Parrot Trust.

The team initiated surveys of *Cacatua sulphurea* to gain new information about the remaining wild population and to understand the conservation needs of this cockatoo to survive. Sadly, what we found was significantly less birds than have been recorded in surveys over the past 10 years.

Into the Field

There are four generally accepted subspecies (three sub-species are endemic to Indonesia and one sub-species is shared with Timor Leste): 1) *C. s. sulphurea*, the nominate race, found in Sulawesi; 2) *C. s. parvula*, found across Nusa Tenggara (a necklace-like chain of islands in the southern part of Indonesia) with the largest population

on Komodo/Rinca Islands and also found in Timor Leste 3) *C. s. abbotti* found solely on Masakambing Island in the center of the Java Sea; and 4) *C. s. citromocristata* found solely on Sumba Island (map page 9).

The first studies started in September 2011 when a team from KKI/IPP travelled to Masakambing. In January and February 2012 they went on to Sumba. A later trip from March to June included Dudi and Dwi (KKI/IPP) along with Mehd and Jamie Gilardi (WPT). All told, they travelled over hundreds of miles by air, by boat and on foot, visiting several islands in Indonesia to assess the current status of these birds.

Komodo National Park, East Nusa Tenggara: It is here that perhaps the highest density of Yellow-crested Cockatoos may still occur. Analysis of satellite maps shows that of all surveyed locations, this is the island where substantial tracts of forest can still be found.

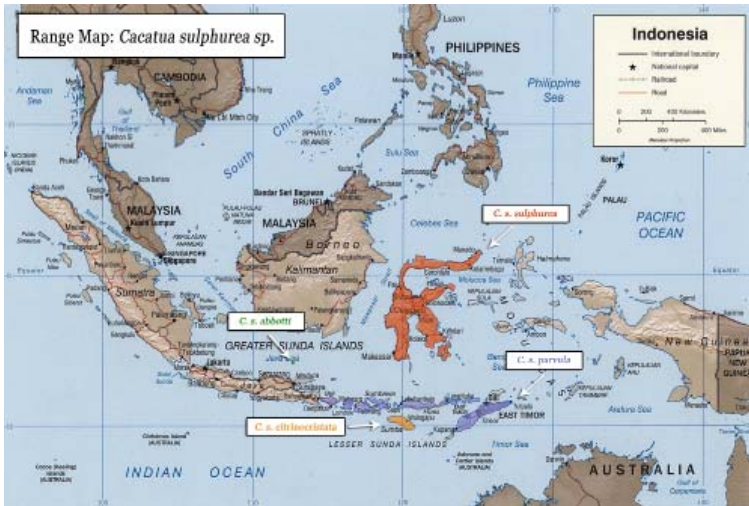
The ironic thing about the cockatoo population on this island is that it has benefitted from the protection and conservation of the Komodo Dragons (*Varanus komodoensis*). The chicks are certainly on the menu of the young dragons during the breeding season, as the reptiles spend the whole of their young lives on the trees avoiding being eaten by adults. It is easy for a young dragon to enter a nesting cavity and help itself to anything inside. Future efforts to protect the parrot will no doubt benefit from efforts to protect the cockatoos' nesting sites from this predatory pressure.



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YELLOW-CRESTED COCKATOO
(*Cacatua sulphurea* sp.)

AKA Lesser Sulphur-crested Cockatoo

Extremely rare. Now classified by IUCN as Critically Endangered with population declines estimated at more than 80%. The nominate race and all related subspecies have been reduced to small remnant populations of only a few hundred birds scattered throughout Indonesia. Three subspecies, *sulphurea*, *abbotti*, and *citronocristata*, are the most imperilled. Threats include exploitation for the bird trade and deforestation for logging and agriculture. The subspecies *parvula* is a bit healthier though the population likely remains under 1,000 birds.

(clockwise from top)
A pair of *Cacatua sulphurea abbotti* inspect a tree hole;

C. s. citronocristata perched and calling on the island of Sumba;

C. s. parvula on Nusa Penida, an island of the south coast of Bali;

Researchers Dudi Nandika and Dwi Agustina watch a Komodo Dragon on the island of Komodo - where cockatoos seem to be holding their own.

(facing page)
C. s. abbotti



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Pasoso Island, Central Sulawesi: This island holds one of the best possibilities for the species' future. The birds are still found in relative abundance and most importantly can be protected with minimal funding and effort. The best way to achieve this is to involve the five families living on the Island in the conservation work. As on Komodo Island, the cockatoo benefits from an unrelated local conservation program – a sea turtle program already in place. Unlike on Komodo, with its famous predatory lizard population, the turtles present no danger to the cockatoos.

Manupeu Tanah Daru National Park & Poronombu Forest at Sumba, East Nusa Tenggara: In some sites on Sumba the cockatoo populations are still good enough to proceed with conservation fieldwork. Implementing ways to boost the birds' breeding efforts and protecting nest locations are high priorities. Suitable nesting trees are very few, and the competition between different bird species is high.

At other sites such as the forest in Poronombu, the main problem is that the forest is outside the National Park boundaries. Even though the cockatoos are nominally protected, the trees for nesting and for foodstuffs are not, and some logging is still taking place here for local use in building houses. As such, the numbers of Yellow-crested Cockatoos here may not increase and the birds may disappear from this region. The only way to save the Poronombu forest is to declare the region a Nature Reserve as it is too small to be considered for a National Park.

Another factor that will no doubt affect the population of the Yellow-crested Cockatoo is the agricultural changes happening in the whole of Sumba, where every single patch of land is turned to paddies and rice is becoming the staple diet on the Island. Whereas corn, papaya and other

human foodstuffs previously served as supplements in the cockatoos' diet, those foods are more and more in limited supply. Without them, the birds will have to rely entirely on what the dwindling rainforest produces.

Masakambing Island, Masalembu, East Java: Over the past 15 years, the population of Abbott's cockatoos (*Cacatua sulphurea abbotti*) has vacillated between only 5 and 10 individuals, likely making it the rarest of all cockatoos. Fieldwork from September - November 2011, and then again in 2012, found 15 cockatoos, a clear increase, including 5 adult pairs (apparently mated), one "teenager" male and two juveniles. Ongoing educational efforts on the islands initiated by KKI/IPP including school visits, posters, and community presentations appear to be working as the birds' population remains intact, and very slowly on the rise.

Future Outlook

On some islands the outlook for the Yellow-crested Cockatoo is more desperate than on others. Prioritizing which area to focus on first is vital and at the same time, a difficult decision to make. In some places there are so many factors affecting the birds that the conservation of the species in those locations may be nearly impossible to achieve. As indicated, the situation appears far worse than was previously known, such as in Sulawesi. The results of this fieldwork are being used to formulate and implement further conservation efforts in key locations where they can have the greatest impact. These efforts will likely include:

Field Research: Conducting bird counts to further census current wild populations, assessing availability of foodstuffs and use of habitat, and assessing causes of poor reproductive success.

Community Involvement/Education: Implementing a C-A-P (Conservation, Awareness and Pride) program for schoolchildren and adults in several

islands, coordinating the program and assessing the response. These efforts originated by IPP and KKI have proven to be an essential and effective means of affecting local attitudes in favour of protecting the cockatoos and away from viewing them as a resource to harvest.

Conservation: Maximizing the species' reproductive potential through the implementation of nest predator avoidance protocols, maintenance of wild nests to avoid losses due to nest flooding and decay, and the provision of artificial nests to increase overall nest availability. We also aim to build local capacity by training local researchers and project participants.

Reduce Illegal Wild Bird Trade: Recruiting local conservation officers, law enforcement officials, and village leaders to collaborate with us in efforts to emphasize the problems inherent in non-sustainable trapping and the critical need to suppress it.

PARROT SPECIES facing impending extinction are not isolated to the wilds of Central and South America, but are found across all bio-geographical regions where psittacines are found. The IPP/KKI and WPT team is proving that in-situ programs in developing nations can achieve significant change in addressing the decline of threatened and endangered species, with relatively limited resources, but through collaboration and partnership building at a local level.

The Yellow-crested Cockatoo and its sub-species will require the on-going aid of many organizations to ensure numbers are stabilized and future populations are safeguarded. IPP/KKI and WPT are committed to supporting the work needed to achieve that goal.



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(clockwise from top)

An education program termed C-A-P (Conservation, Awareness, Pride) engages both youth and adults;

A school visit on Sumba;

C. s. parvula on Nusa Tenggara;

Nest boxes under construction - Sumba.

(facing page)

C. s. parvula



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