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Male leaving the nest hole in the termite mound after feeding a chick, which can be seen in the entrance to the cavity, which is deep enough for the young to retreat far inside | Photo by Paul R. Ehrlich

Another Aussie Parrot at Risk

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In a [previous post to the MAHB Blog](#) the story of the endangered orange-bellied parrot of Tasmania was told. Another gorgeous Australian parrot is also in deep trouble, this time at the northern extreme of the continent. The golden-shouldered parrot is a denizen of Cape York, the northeastern tip of Australia, where it is now restricted to the eastern edge of its historic range on the peninsula, especially near Musgrave. It nests in cavities excavated in termite mounds in tropical savannah woodland, when the mounds are soft after the rainy season, and both members of a pair feed the 3-6 young.



*A pair of golden-shouldered parrots at Artemis Station, sitting on the termite mound that contains its nest.
Male on top, female below | Photo by Paul R. Ehrlich*

The species is now considered divided into two populations, both threatened primarily by widespread habitat change from human disruption of ancient fire regimes and heavy grazing pressure. For example, when managed fires are not hot enough, woodland develops at the expense of the grasses that provide seed for the parrots at critical seasons. Cockatoo grass (*Alloteropsis semialata*) is particularly important throughout the tropical savannas as it provides seed for both birds and small mammals, often at times when other foods are scarce. This grass is also highly susceptible to overgrazing by pigs and cattle. Further, it has been shown that Pied Butcher birds, thought to be the chief predator of the parrot, are far more able to ambush both adults and young in the woodland environment that provides them with greater cover. Green tree ants are known to attack nestlings and as the nests of these ants are constructed by sewing leaves together, they reach greater densities in woodland where the foliage is appropriate for nest construction. Feral pigs, one of the most destructive species *Homo sapiens* has spread around the world, are an additional problem, digging up vegetation and even damaging termite nests where those suitable for the parrots' reproduction may be in short supply.

Communities of birds, often comprising many very different species, provide several ecosystem services including the regulation of populations of both native and invasive species. An

additional service provided by this parrot is the result of its beauty and intriguing nesting habits which draw thousands of paying ecotourists to see them. Indeed, one of the original causes of the species' decline was harvesting for the cage bird trade (now apparently pretty much under control). It was of great interest to us that while the parrots we saw were located on a working cattle station, several locations were managed not primarily for cows but for parrots. The owners were acutely aware that a sustainable parrot population was an important source of income. The owners, citizen scientists Sue and Tom Shephard are pioneers in this respect and should be congratulated for their vision. However, a continuing concern is that disturbance by ecotourists may become a threat as eager birdwatchers visit the delicate parrot habitat.

There have been several strategies put in place to increase the numbers of the golden-shouldered parrot. The recovery plan at Artemis station, headed by the Shepards, includes the careful management of burning regimes and grazing – especially to maintain cockatoo grass - together with a new initiative, the establishment of feeding stations. This initiative is the result of observing that at the start of the wet season, native grass seed can be in short supply. This occurs when the annual seed is beginning to germinate while the perennial seed is not quite mature. It is during this period that juvenile parrots have been known to starve. It is not known whether or not this period has always been a risky one but we do know that climate change, altered fire regimes and overgrazing have not helped. The feeding stations are put in place just before the wet season while care is taken with the timing and distribution of burns and pig control remains a constant chore.

The black-faced woodswallow appears to be a crucial “companion” species as its alarm calls warn parrots of danger. Feeding stations in the proximity of swallow nests appear to be especially beneficial to the parrots.

In the golden-shouldered parrot's situation we see one more example of the general problem of preserving biodiversity. Human activities alter landscapes in ways that often destroy suitable habitat for populations of other organisms. The ivory-billed woodpecker went extinct when demand for timber after the American Civil War led to clearing the vast tracts of hardwood forests in the southeastern United States. The birds depended on large dead trees for both nest holes and beetle grubs to eat, and required about 10 square miles of suitable forest habitat to support a breeding pair. Like the golden-shouldered parrot, the ivory-billed woodpecker attracted collectors as it declined, but they shot the woodpeckers to make specimens out of them. Similar stories of habitat destruction abound, and all environmental scientists know that the accelerating wave of population and species extinctions foreshadows a global catastrophe.

Huge effort has gone into seeing if any ivory-bills still exist, and so far the efforts have been fruitless. Will the fate of the parrot be the same? One of the only two things we can be sure of, sadly, is the rarer the parrots get the more they will be valued by twitchers and traffickers in illegal wildlife. The other certainty is as long as the human population keeps growing, the parrots and populations of other elements of our life-support systems will keep going extinct and contributing to the eventual collapse of civilization. Humanity is sawing off the limb it is

purchased on, and some of the early casualties are among the most beautiful and interesting of our living companions.

Incidentally, having attracted the attention of politicians, Sue and Tom Shephard won the Queensland Landcare Conservation Award for their work on sustainability.

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