



Adult male red-bellied macaws *Ara manilata*.

## Red-bellied Macaws Reared at Loro Parque

by Rosemary Low  
Tenerife, Spain

The red-bellied (*Ara manilata*) is a distinctive small macaw about 20in (50cm) in length. Most macaws have part of the lores feathered but the totally bare lores and yellow facial skin distinguishes *manilata* from all others. This species is mainly green, with blue on head and wings and a maroon patch on the lower abdomen. Undersides of tail and flight feathers are olive yellow. The bill is black and the iris is dark brown.

It occurs throughout most of the Amazon basin, its distribution coinciding with that of *Mauritia* palms on which it feeds. Common in the wild, it is rare in captivity, although quite a few have been exported from Guyana in recent years.

I believe that the most suitable environment for captive birds is an outdoor aviary in a warm climate and a spacious indoor aviary in a cooler climate. A small cage should not be considered.

At Loro Parque the red-bellied macaw was represented by a pair in the off-exhibit breeding centre and by two

males on exhibit, when I became curator in February 1987. The pair had been in residence at least four years without attempting to breed. This is not an easy subject in captivity, being extremely susceptible to stress, also to obesity. Few of the wild caught birds which aviculturists obtain survive more than two years, unlike other *Ara* species which adapt very well to captivity.

I know of only two breeding successes prior to 1987, that of Florida veterinarian Greg Harrison and, in the UK, that of the pair belonging to Mrs. P. Vahrman. Her breeding of this species was the result of careful thought and of knowledge of *manilata* in Guyana where she formerly resided. I have the greatest admiration for the way in which she set up a planted house and made her pair search for their food.

The pair at Loro Parque is housed in an aviary of traditional type, measuring about 13ft (4m) long, 3½ft (1m) wide and 7ft (2.1m) high. The nest-box is attached to the outside of the aviary, thus inspection presents no problems. Not that these birds are aggressive like

other macaws when breeding; they remained quite shy. The nest-box measures 12in (31cm) x 13in (33cm) x 30in (76cm) high; there is a 5in (10cm) square inspection door near the bottom.

The female laid a clutch of four eggs in April; there were two eggs on April 7. On the 22nd one was placed in an incubator as a precaution against some catastrophe in the nest. Assuming it was the first egg laid (the third was infertile), the incubation period was 25 days. It hatched in the incubator at 5pm on April 30, and was transferred at 7pm to the nest of a pair of Illiger's macaws (*Ara maracana*) which were known to be excellent parents. They had two chicks, about two and three days old, and immediately accepted the *manilata* chick.

The next day, May 1, there was a pip mark on another *manilata* egg which was removed to the incubator. The chick hatched on May 3 and it, too, was transferred to the Illiger's nest. Their eldest chick was taken for hand-rearing, also an egg which hatched later that day. Both these were successfully hand-reared. The third *manilata* pipped and hatched in the incubator on May 7. It weighed 13.2g.

I made the wrong decision and decided that this one should be hand-reared. It appeared to be progressing well and I was shocked to find it dead at 6:30am on the fifth day. Autopsy did not reveal the cause of death; its liver was normal but its kidneys appeared abnormal.

The two chicks with the Illiger's macaws thrived; their crops were always well filled. They were ringed at 19 and 21 days of age with 10mm rings. The eldest left the nest on July 17, aged 78 days, and the second on July 19, aged 77 days. They then differed from the adults in the generally slightly duller plumage, very pale yellowish skin on the face (ochre-yellow in adults) and in having the beak only partly black, there being a broad light stripe down the centre of the upper mandible.

Development of the chicks was as follows: Day 1-fairly long yellowish down on upperparts and head; down shorter and more whitish on underparts. The beak was whitish and the nails white. Day 19-eyes open; ears just open; beak pinkish-white. Head bare, almost wrinkled skin. No feathers erupted but prominent dark lines under the skin, especially on the back (second down). A little short whitish down remained on the back and nape. Tail quills present; wing feathers in quills 1.2cm to 2.5cm long. Day 26-soft pads on sides of beak

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dark; beak otherwise white, tinged with grey. Head almost bare. Sparse tufts of grey second down on the back; wing feathers erupting. Day 40-wings nearly fully feathered; back and sides of neck bare, crop and underparts virtually bare. Day 46-head and wings three quarters feathered. Day 49-head bluish; almost completely feathered. Bare skin on face white. Beak white, grey at base of upper mandible and on the raised pads. Feet and nails grey.

The two young *manilata* and their *maracana* companion were removed to a suspended cage on August 10. After the first day, when they ate very little in the new surroundings, they consumed corn on the cob with enthusiasm, also the standard mixed food. This consists of soaked sunflower, boiled maize, sprouted mung beans and a couple of other types of boiled beans, peanuts in the shell, boiled peanut kernels, apple, carrot and aiselgar (similar to spinach but with a larger leaf). Other fruits in season, such as cactus, pear and palm fruits, are offered. The chicks were reared on this food, plus bread and milk.

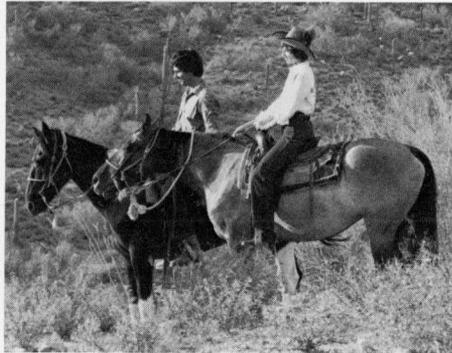
After the removal of their eggs at the beginning of May, the female red-bellied macaw produced a second clutch of three eggs, one of which (probably the last) was infertile. The first egg was laid on June 1 and there were two chicks by June 27, again giving an incubation period of 25 days.

The chicks were very well cared for by the parents. Unlike those reared by the Illiger's, when disturbed for nest inspection or to change the wood shavings, they would roll onto their backs with their feet in the air in the typical macaw defensive position. They were ringed when 26 days old with 11mm rings. The young were always a joy to hold — so plump and sweet-smelling. They left the nest for the first time on September 8 but for the next few days spent much of the time inside the nest.

Parent-reared macaws are, in my limited experience, much heavier than those raised by hand and I was pleased that with this important species four chicks were reared by this method in 1987. In many groups of parrots hand-reared young are equal or superior to those raised by their parents but this has not been my experience at Loro Parque this year.

The young will be retained for breeding purposes. Fewer problems should be experienced with captive-bred birds, which may be the main hope of establishing the red-bellied macaw in aviculture. ●

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Double yellow-headed Amazon, 12 years old, named "Cadillac"

Yellow naped Amazon, '88 import  
Red fronted macaw, s/s 4 year old female

Congo African grey, speaks English and Japanese, named "Ahmey"

Orange-winged Amazon, domestic raised, 5 months old, still being hand fed

Timneh African grey pair, s/s, female is import banded

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