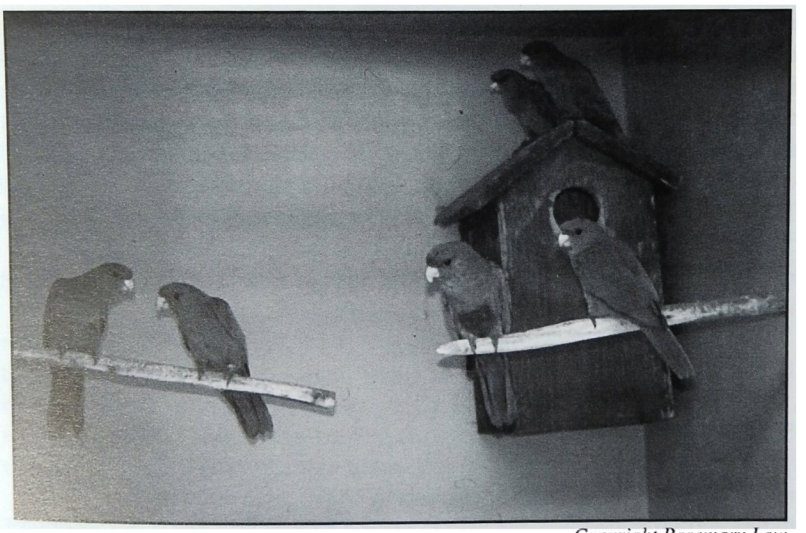
THE PURPLE-BELLIED PARROT *Triclaria malachitacea*: ITS NATURAL HISTORY AND AVICULTURE

by Rosemary Low

One of the most distinctive of neotropical parrots, the Purple-bellied *Triclaria malachitacea* is unique in appearance and behaviour. It is the only member of its genus. An extremely beautiful bird, it has uniform rich dark green plumage, apart from the blue underside of and blue tip to the long, broad tail, and has large brown eyes. It is a sexually dimorphic species, with adult males distinguishable by the large patch of violet on the abdomen. The species is 12in (30cm) long of which the tail accounts for approximately 5in (12cm). It weighs about 140g. This species is usually called the Blue-bellied Parrot in ornithological literature.



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Pair of Purple-bellied Parrots and their four young in the breeding centre at Palmitos Park

My association with this species spanned 27 years, with a break of ten years between 1977 and 1987. Since leaving Palmitos Park in 1995 I no longer have this parrot in my care - and it is one which I miss very much. As it has always been rare in aviculture, I feel privileged to have kept it in my own collection and to have looked after pairs at Loro Parque, Tenerife, and Palmitos Park, Gran Canaria.

Distribution

The Purple-bellied Parrot is endemic to the Atlantic forest region of south-eastern Brazil. It occurs in Bahia, Minas Gerais, Espirito Santo, Rio de Janeiro, Sao Paulo, Parana, Santa Catarina and Rio Grande do Sul. There are two records from Argentina (Collar, Crosby and Stattersfield, 1994).

Status and threats

It is considered to be endangered. The main threat is habitat loss; trapping for trade is also suggested as a reason for decline (Bencke, 1996). If so, the mortality rate must be extremely high because this species has always been rare in aviculture. Legal export of Brazilian birds ceased more than 30 years ago; nevertheless, this has not stopped the export of certain other parrot species from the same region. It is difficult to believe it would be locally popular as it cannot 'talk' and has a personality which is totally different from the usual companion parrots in the region - Amazons and macaws. Virtually all parrots endemic to Brazil's Atlantic forests are threatened or endangered as a result of loss of habitat. Bencke states that in Rio Grande do Sul illegal clearing of forests on a small scale, to provide wood for curing tobacco and fuel for winter, is still very common. However, as the forest fragments are small and easily accessible to trappers, the theft of chicks from nests might become a more serious threat in the future. Three nests found in Santa Cruz do Sul were all at a low elevation - 3m to 5m (approx. 10ft-17ft) above ground. This factor and the accessibility of remnant forest patches results in higher rates of nest poaching than occurs in larger forest areas.

Habitat

This is a true forest dweller. According to Collar, Crosby and Stattersfield, it lives in the shade of moister valleys (300m-1,000m (approx. 984ft-3,280ft)) and ventures out seasonally to lower areas. They state: 'Its rarity (apparent low density and/or patchy distribution) appears to be related to this habitat preference, but also to overall habitat loss and to competition with man (who destroys the plant in the process) for fruits of the palm *Euterpe edulis*, a main food source (Collar et al., 1992).'

Pizo, Simao and Galetti (1995) studied six parrot species in the Atlantic forests, including *Triclaria*. They observed only one of these species, the Red-bellied Conure *Pyrrhura frontalis*, feeding on the fruits of *E. edulis*. Bencke states that 'Several evidences clearly indicate that the fruits of *Euterpe edulis* are not a particularly important food resource for *Triclaria* in Rio Grande do Sul.' He relates that in the central-eastern part of this state, the Purple-bellied Parrot is mostly associated with the humid broadleaf forests along the escarpment, which are now severely fragmented. 'It is

presently restricted to the largest remnants of mature forest. Based on the amount of suitable habitat available, the number of *Triclaria* inhabiting the escarpment in the centre-east of the state was estimated at a maximum of 10,000 individuals, a numerous and so far unprotected population.'

Bencke states that on the Serra Geral escarpment (eastern-central Rio Grande do Sul) there is now a complex mosaic of agricultural areas and small forest remnants which are connected to a varying degree. *Triclaria* is now restricted to the largest remnants of mature forest, almost all of which are confined to hilltops and steep mountain slopes. It uses secondary woodlands and narrow strips of second growth between plantations. Apparently it tolerates secondary woodland only if it is connected or close to tracts of essentially mature forest. In July and August the Purple-bellied Parrot moves to second growth stands to coincide with the maize harvest. Maize is one of its main food items at this time. Unlike other parrots, it lives primarily in the forest interior, where it often occupies the lower strata.

Note that the words 'moister' and 'humid' are included in descriptions of its habitat. Most people who have not visited the Atlantic forest area of Brazil may not be aware that this is a wet region which, unlike the more northern regions of Brazil, is quite cool. I was very briefly in the area in 1988 (for one day!) and the heavy rain and cool climate reminded me of the UK. It helped me to understand why, in captivity, the Purple-bellied Parrot shows a marked dislike of strong sun and why, in the UK, it would sing joyfully on cold, frosty mornings. It is not a species which seeks the sun.

Social behaviour

According to Bencke, this parrot is normally found in pairs (45% of all records where the number of birds could be estimated). However, up to three pairs may gather at certain times (usually early morning). 'These birds vocalise continually and frequently engage in agonistic contacts. The individual pairs, however, remain segregated within the group and often respond to each other with a variety of vocalisations.'

Food sources

The seeds and pulp of several common native plants, especially those of the families Euphorbiaceae and Myrtaceae, and cultivated maize, are the main foods in central-eastern Rio Grande do Sul, according to Bencke's study. Some of these are 'keystone food resources' for *Triclaria* because they fruit, and are consumed, over extended periods. They are available in large quantities during periods of low overall fruit diversity or constitute the main food item during the breeding season. Purple-bellied Parrots were not observed to feed on buds or nectar, possibly because they are infrequent items of the diet, although these items are often listed in the literature. They were seen to eat wood and bark.

Avicultural history

The first reference I can find to this species relates to a single bird kept by a well-known member of the Avicultural Society, Hubert Astley, in 1906. David Seth-Smith, Editor of the *Avicultural Magazine* for many years, visited Hubert Astley and his wife Lady Sutton at Benham Park, Newbury. His wonderful collection there included a pair of Lear's Macaws *Anodorhynchus leari*. Mr Seth-Smith, who was Curator of Birds at London Zoo, noted: '... perhaps the rarest bird in the whole of Mr Astley's fine collection was a small Parrot from South America, which he calls the Violet-bellied Parrot *Triclaria cyanogaster*. It is a bright green bird with a large patch of violet blue on the abdomen and bright reddish-brown eyes. I have never before seen or heard of an example of this species in captivity' (Seth-Smith, 1907).

I can find no further reference to this species in aviculture in the first half of the century, except for a single bird at Berlin Zoo. In 1961 an Essex importer received a pair. In 1964 or 1965 Herbert Murray, also of Essex, England, and a valued supporter of the Avicultural Society for many years, imported five birds for his own large collection. I can vividly recall seeing them in one of his huge aviaries. They were so unlike any other parrot with which I was familiar! They hawked flies! I was very taken with their beauty, especially their large dark eyes. When Mr Murray advertised a pair in 1968 I was the only person to answer the advertisement! The pair cost me £30 (approx. US$48) - probably the greatest avicultural bargain in which I ever invested. They enchanted me.

Since that time I can literally count on the fingers of one hand the number of collections in which I have seen this species outside Brazil - Walsrode, Loro Parque, Palmitos Park and one private collection. The Purple-bellied Parrot has a reputation for being very hard to establish when newly imported. One dealer in Paraguay reputedly said he did not like to handle this species because it always died.

Requirements in captivity

The aviary should be large enough to enjoy the skilful flight of this species. Ideally it would be large and planted, or surrounded with trees. It should provide good cover from strong sunlight; an enclosed shelter is necessary in a temperate climate. The Purple-bellied Parrot is actually a hardy species which tolerates well low temperatures. As already mentioned, it has an intense dislike of strong sunlight. It needs a frequent source of fresh branches for gnawing. Without this, some birds may suffer from an overgrown beak.

Diet

Loss of recently captured birds was probably attributable to their reluctance to sample the foods which trappers would offer. Mr Murray's birds thrived because they were placed in a large planted aviary. Every week they were provided with saplings 8ft (2.4m) long, which had been cut especially for them. They fed on the bark and leaves in 'a frantic manner'. They took fruit only if it was hung from a perch. When I first had my pair, I would attach grapes to a branch. They also took nectar with added vitamins, spray millet, sunflower, peanuts, pine nuts, niger and canary seed. Various fruits, berries and corn on the cob were relished eventually. The male's most favoured items, in order of preference, were cherries, pips from grapes, buds or bark from trees, and spray millet. At Palmitos Park the Purple-bellied Parrots would eat a wide variety of fruits, including guavas and cactus fruits. The usual greenfoods, and raw vegetables such as carrot and courgettes, were also eaten. The basic mixture contained seeds and cooked maize and cooked beans, but I do not recall them being very fond of the latter. Fresh corn was a favourite item. I never saw them hawking insects - but this behaviour would be possible only in a very large aviary. I especially remember their fondness for guavas and was interested to read the list of plant species which parrots at Parque Estadual Intervales in south-eastern Brazil had been observed to eat (Pizo, Simao and Galetti, 1995). The only item listed for *Triclaria* was the seed of the guava *Psidium guajava*.

Vocalisations

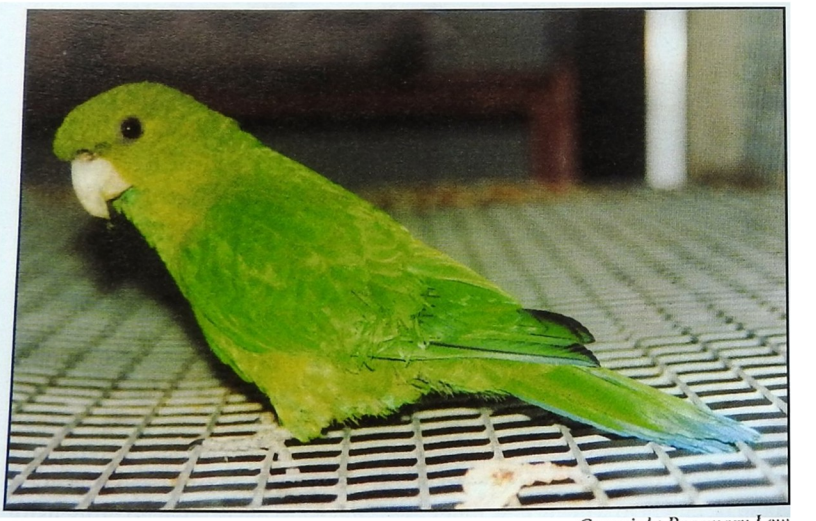
One of the most wonderful and certainly the least parrot-like characteristic of this parrot, is its song. According to Dr Moojen (1960), the Indian name of this species, *Sabia-cica* means a kind of thrush, or robin, on account of its 'melodious, soft thrush-like song'. He further states that 'Blue-bellied Parrots easily learn to sing new songs or to imitate the human voice, like most parrots'. While I am not surprised that they could be taught to whistle new tunes, they appear to me to have no propensity at all to imitate the human voice.

In my long out-of-print *The Parrots of South America* (1972) I recorded of my male: 'His song is clear and thrush-like and consists of a few notes repeated quite loudly. He can also whistle very quietly.' This quiet whistle is comparable to the sub-song of a Blackbird *Turdus merula*, for example. Females may also whistle quietly - but I have heard the full song only from a male.

In addition to the melodious notes, Purple-bellied Parrots have a 'chack-chack' alarm call. The courtship display of the male, in which he opens his wings, and lowers his body, includes a series of notes which might be interpreted as 'chit-chit-chit-chit-choowit'.

Behaviour

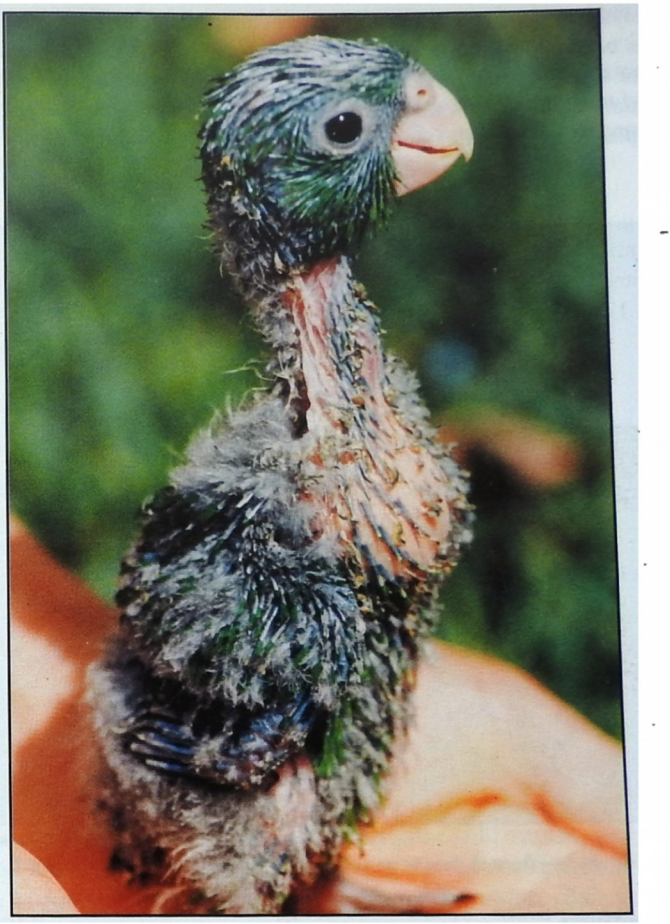
This is perhaps closest to that of the Red-capped Parrot *Pionopsitta pileata* or other members of this genus; *pileata* is the only one with which I am familiar. However, in flight it is nothing like the heavy-bodied *Pionopsitta*. *Triclaria* shows extreme manoeuvrability. I recorded of my male: 'He is unafraid, rather than tame, and will display when I talk to him. He fans his tail, ruffles his short head feathers, dilates the pupils of his large brown eyes and walks with deliberate tread along the perch, bowing low until his beak almost touches the perch. When he reaches the end of the branch he flies off and returns immediately to repeat the performance.' (Low, 1972).



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Adult female Purple-bellied Parrot

Males can be very excitable and a little aggressive when displaying. The tail is spread and the wings may be opened and the violet feathers of the abdomen are puffed out. But it is the eye blazing and the rapid head shaking which indicate most clearly the male's excitement. He may also rub his beak on the perch. A responsive female will also shake her head and sing quietly. So different from an Amazon, for example.



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A female hand-reared by the author at Loro Parque - it is aged 32 days

Breeding

This species does not seem difficult to please regarding nest-boxes. The female at Palmitos Park would lay in April or May. The nest-box was large - approximately 8in (20cm) square and 12in (31cm) high, as I recall. There were two pairs when I was at Loro Parque. In 1988 one female laid her first egg on the 7th January and the other female laid on the[?th] January. These females laid four eggs, whereas the female at Palmitos Park always laid six eggs! Eggs were laid on alternate days. Incubation probably did not commence until the second egg was laid. The first egg would usually hatch 30 days after it was laid and the other eggs after about

28 days. The last egg in a clutch of six can hatch as long as 34 days after it has been laid, presumably because incubation is more erratic after most of the chicks have hatched. However, the true incubation period under optimum conditions is much less - as short as 25 days in one egg which was placed in an incubator.



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Six chicks - from 11 days to newly hatched - in one nest at Palmitos Park

Chick growth

Newly hatched chicks have long off-white down on the back, a little on the nape and virtually none on the head. The beak is almost unpigmented, with a very faint brown tinge. They weigh about 6g. After a few days the protrusions at the side of the upper mandible (they cannot be described as pads) are quite pronounced. The light grey and mid-grey second down erupts at about two weeks. The ears open at about 12 days but the eyes do not open until about 18 days. The wings and the head are the first areas to feather. Chicks were ringed with 6.5mm rings at about 14 days. At about three weeks the feathers are just starting to erupt. The area over the crop and the neck is the last to feather. The highest weight I recorded in parent reared young was 156g at 32 days, which was about 10g more than average. After the age of about five weeks chicks were not weighed as they disliked

being handled. The feet start to darken at about one week old and are dark grey on fledging. The young spend eight weeks in the nest.

Several young had to be removed for hand-rearing, in order to be treated for bacterial infections. They were eating well on their own by seven weeks and were independent at about nine weeks old, when they weighed between 120g and 148g.

Immature plumage

Newly fledged young resemble females. They cannot be sexed by the colour of the abdomen. However, if a few feathers are plucked from this area, the replacements feathers should indicate their sex. The main feature in which immature birds differ from adults is in the colour of the narrow area of bare skin surrounding the eyes, which is white, whereas in adults it is grey.

General remarks

The Purple-bellied is not a typical parrot. It has a grace and, in flight, manoeuvrability more reminiscent of a softbill. Neotropical parrots, as a group, show homogeneity - they are remarkably similar in many aspects (whereas, Australian parrots, for example, are not). The Purple-bellied Parrot might be described as the odd one out. It is a most attractive aviary bird, with its beautiful dark green plumage and unique and pleasing vocalisations. Its lack of a pronounced area of bare skin around the eyes and the large size of the eyes are other features which set it apart from most neotropical parrots. It seems destined always to be rare in aviculture; its avicultural future seems uncertain due to the very small numbers in Europe - and perhaps none elsewhere outside Brazil.

With continuing loss of habitat, its status in the wild can only deteriorate. Because it is such a distinctive species, more effort should be made to try to secure its survival - in its natural habitat and in aviculture. Bencke (1996) described public awareness activities which have been targeted at the urban section of the community in Santa Cruz do Sul and Lajeado. These included a newspaper article and a television programme. A short video was produced documenting the plight of this parrot in the region. Bencke himself met with state politicians to explain alternative solutions to the use of wood from native forests in the curing of tobacco leaves. He pointed out that first world importers of tobacco leaves originating from the Santa Cruz do Sul region should be made aware that the tobacco is planted in areas where a globally threatened parrot species occurs.

There follows on the next page a table with details of two chicks hand-reared at Palmitos Park.

	Chick N° 1	Chick N° 2
Age in days	Weight in grams	
9	-	48
11	49	-
12	-	55/59
13	-	61/66
14	61/66	66/72
15	70/76	70/74
16	74/80	76/82
17	76/82	80/88
18	86/92	86/96
19	92/102	88/96
20	96/102	94/103
21	100/112	96/112
22	110/120	94/108*
23	102/110*	96/106
24	102/116	94/102
25	106/112	92/120
26	102/114	not recorded
27-36	no weight records (author absent)	
37	not recorded	138/152
38	not recorded	134/154
39	156/180	138/154
40	150/176	140/158
41	156/175	140/158
43	160/176	144/153
45	162/174	140/160
47	164/182	142/156
49	166/184 eating well	140/146
51	162/176	136/140
55	156/refused food	132/158
62	148	132/136
65	independent	nearly independent

* bacterial infection; treated with Chlamoxyl.

Weights of two chicks hatched at Palmitos Park in 1991: they were the oldest of five chicks hatched in one nest and were removed for hand-rearing aged 13 and 11 days. Weights shown are those before and after the first feed of the day. Food consisted of a mixture of Milupa baby cereal, wheat germ cereal, Nekton Lori and liquidised papaya.

References

Bencke, G.A. (1996). The Ecology and Conservation of the Blue-bellied Parrot *Triclaria malachitacea* in Forest Fragments in Rio Grande do Sul, Brazil, report.

Collar, N.J., Crosby, M.J. & Stattersfield, A.J. (1994). *Birds to Watch* 2, Birdlife International, Cambridge.

Moojen, J. (1960). *Pageantry of Tropical Birds*. A.Zwemmer Ltd.

Pizo, M.A., Simao I. & Galetti, M. (1995) Diet and flock size of sympatric parrots in the Atlantic forest of Brazil. *Ornitologia Neotropical* 6: 87-95.

Seth-Smith, D. (1907). Foreign Birds at Benham Park. *Avicultural Magazine*, new series, V (8): 230-234.