

The Yungas of Argentina: in search of Rufous-throated Dippers *Cinclus schulzi*.

Stephanie J. Tyler

Resumen

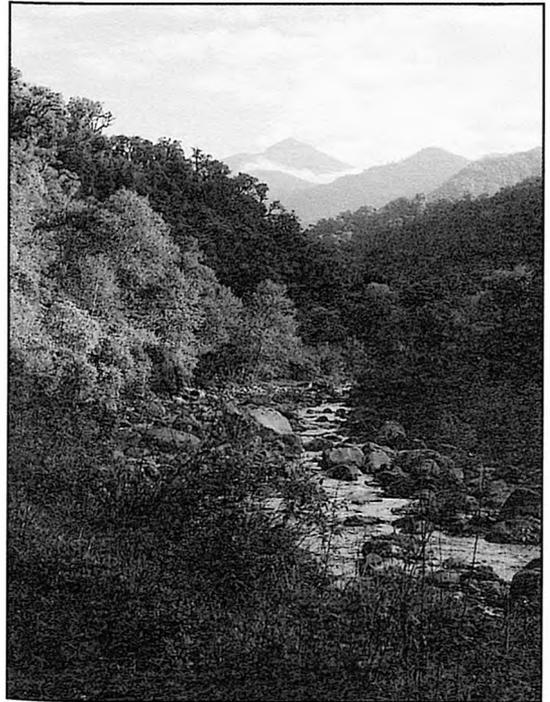
En un estudio llevado a cabo en octubre de 1993 en el noroeste argentino se encontró que la especie *Cinclus schulzi* solamente nidificaba en dos sistemas de ríos de la Sierra de Aconquija, provincia de Tucumán y en las montañas de la provincia de Jujuy. Varios nidos fueron encontrados y su ecología de reproducción estudiada. La especie posee requerimientos ecológicos muy específicos, los cuales se encuentran bajo amenaza por el desarrollo de represas y esquemas hidroeléctricos, el incremento de la polución y deforestación, llegando a estimarse una población restante de no más de 1,000 parejas.

In October 1993 I visited Argentina to look for the Rufous-throated Dipper *Cinclus schulzi*, a Red Data species with the most restricted distribution of the world's five species of dipper. It occurs only in southernmost Bolivia and north-west Argentina (see Map), and rather little was known of its ecology or breeding habits^{1,2}. Three weeks were spent camping and walking along streams and rivers in the Sierra de Aconquija of Tucumán province and in the mountains of Salta and Jujuy provinces. Much of that time was spent in the narrow, intermittent strip of cloud-forest on the eastern side of the Andes, described as the forested Yungas zone³, which at altitudes from c.1,000 m to over 2,500 m, is dominated by Andean alders *Alnus acuminata*. West of this area are the sparsely vegetated steppes of the high Andes, and to the east are drier forests and scrub, then the savannas, cacti deserts, grasslands and farmland of the Chaco. A full account of the data collected in 1993 on the distribution, feeding ecology and breeding biology of the Rufous-throated Dipper will be published elsewhere⁵. This article briefly highlights some of the primary results of the survey.

Rufous-throated Dippers were only found on the Los Sosa and Grande river systems in the Aconquija range (Tucumán) and on the Río Yala, Jujuy. They were not uncommon on the more stable sections of river within the alder forest zone, where there were rocks, pools, riffles and many waterfalls. Pairs had territories of between c.650 m to over 1,200 m in length, with the territory of one pair adjacent to that of the next.

Although the few previously described

nest were found in the month of December^{1,4}, five active nests were found in October 1993. Two partially constructed nests were found on 15 October and 22 October (one in a boulder bank and one on a bridge support), with adult birds actively taking moss to them; the third nest, on a rock less than 0.5 m from the water surface had a clutch of two eggs on the 22 October (one egg on 20 October); the fourth, on a rock ledge over a waterfall, had two well-grown young, just a few days from fledging on



Río Los Sosa in the Valle de Tafí (Stephanie J. Tyler)

20 October. These young were still in the nest two days later when the adults were photographed (in constant rain) returning with food. Their food loads were surprisingly small in comparison with those taken to large nestlings by White-throated Dippers *C. cinclus*. Although there was some "whitewash" below this nest, the adults were still carrying away faecal sacs. The fifth nest was inaccessible, high in a crevice on a wet rock face, but the male constantly sang on a rock below the nest. An adult was seen carrying food at another site but the nest was not found.

The juvenile plumage of Rufous-throated Dippers had not previously been described, but an examination of the nestlings at nest number four (see above) showed that they closely resembled the adults, already showing the rufous throat and having the white wing-bar. The only difference was in the colour of the bill, which was largely pink unlike that of the adults which was dark grey: a similar difference in bill colour is apparent in the American Dipper *C. mexicanus*.

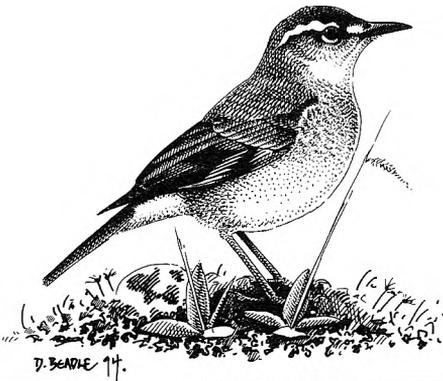
A small sample of dippers was caught in mist-nets so that they could be weighed, measured and the plumage examined. Rufous-throated Dippers are smallest of the world's five dipper species, and have proportionately weaker bills but longer tarsi than White-throated and Brown Dipper *C. pallasii* of Europe and Asia. Only slight sexual dimorphism in size was evident.

Rufous-throated Dippers were never seen diving for food: like the White-capped Dipper *C. leucocephalus* further north in the Andes, they appear to forage only by picking prey from rocks and stones. The birds often do this when

wading in the water, or when standing, head briefly submerged, on the lips of cascades and waterfalls. When standing in rushing water, Rufous-throated Dippers frequently had to flap their wings to maintain their position: the importance of their well-developed tarsi and feet to cling to the wet rocks was then very evident. Unlike White-throated Dippers, which bob up and down (or "dip"), Rufous-throated Dippers wing-flick, at each flick briefly showing the white flash on the inner webs of the primaries. This white flash presumably acts as a signal to other dippers.

Rufous-throated Dippers commonly share the same rivers with two species of furnariid, White-winged Cinclodes *Cinclodes atacamensis* and the more numerous Bar-winged Cinclodes *C. fuscus*, and Torrent Ducks *Merganetta armata*. These three riverine species were more widespread and numerous than the Rufous-throated Dipper on many of the surveyed stretches of river, although the sections supporting dippers had few, if any, cinclodes. The two furnariids foraged on shoals and rocks, often wading at the river edge turning over stones and leaves. They also foraged in riparian grassland, sometimes 50 m or more from the watercourse. The Torrent Ducks dived for prey on the river-bed, the niche occupied in Britain by White-throated Dippers. Other birds on "Rufous-throated Dipper rivers" included Fasciated Tiger-herons *Tigrisoma fasciata* (three on forested streams in the Aconquija, further south than previously recorded³, with one on a tributary of the Río Cochina west of Concepción; one above Escaba, west of J. B. Alberdi; and one on the Río Grande, west of Monteros), Ringed Kingfishers *Ceryle torquata*, White-browed Tapaculos *Scytalopus [magellanicus] superciliaris* and Plain-capped Ground-tyrants *Muscisaxicola frontalis*.

The river that has the easiest access for birdwatchers is the Río Los Sosa in the Valle de Tafi, where a road runs alongside the river from the holiday village of Tafi del Valle down past La Ciénaga lake and the Angostura Dam and then down through forest towards Tucumán. Unfortunately in October this superb river was grossly enriched with nutrients, either phosphates or nitrates, and dense mats of algae covered all the rocks and riverbed. Despite searches, no Rufous-throated Dippers were found on the polluted main river,



Bar-winged Cinclodes *Cinclodes fuscus*
(David D. Beadle)

although interestingly, the two cinclodes species, Torrent Ducks and, lower down, Black Phoebes *Sayornis nigricans* were all present in good numbers. Higher densities of cinclodes were actually found on the seven kilometres below the Angostura Dam than on any other stream surveyed. An unpolluted side river c.8 km below the dam near Santa Lucia, still supported good numbers of Rufous-throated Dippers and one nest (of the five found) was on stonework of the old bridge that once took the road over this tributary (the new bridge is an excellent spot to observe river birds, including the dipper). Other river systems in the Aconquija, such as the Río Grande west of Monteros, the Río Cochina near Concepción and Río Singuil west of J. B. Alberdi, require more effort, although some tracks do go up to dams. It is possible to walk upriver from these (three of the five nests found were on the upper Río Grande and one of its tributaries, above the hydro-scheme). In Jujuy province the Río Yala has relatively good access, with dippers found near Termas de Reyes.

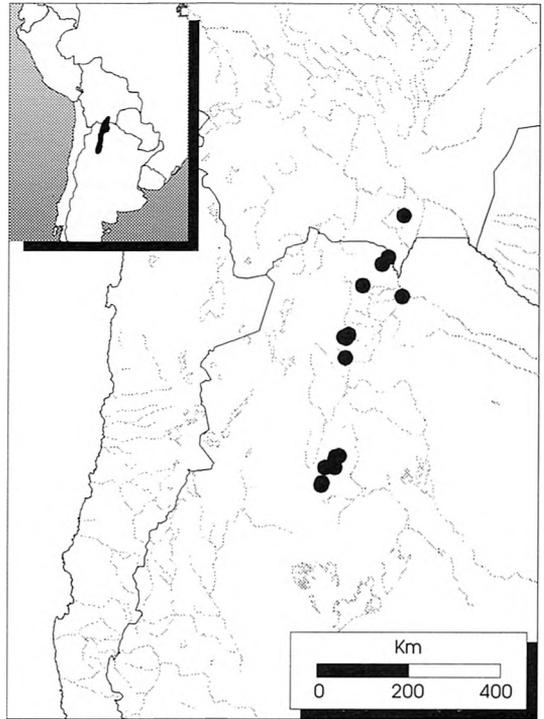
Apart from enrichment, rivers in north west Argentina have been adversely affected by mine pollution, by the construction of hydro-schemes, dams and reservoirs, by forest clearance for stock-grazing, by irrigation schemes which take huge quantities of water from the lower sections of the mountain rivers, by canalization and gravel extraction, and by heavy pollution with molasses. The latter occurs in sugar-cane growing areas, such as around Concepción. From the limited October surveys, literature searches and a map study of suitable rivers, I suggest that the total population of Rufous-throated Dippers in Argentina is unlikely to be higher than 1,000 pairs. Additional pairs may occur in Bolivia, but this population must be very small given the restricted range around Tarija.

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Adult Rufous-throated Dipper by the nest (Stephanie J. Tyler)



Adult Rufous-throated Dipper (Stephanie J. Tyler)



Rufous-throated Dipper nestling (Stephanie J. Tyler)



Algal bloom on the lower Rio Los Sosa (Stephanie J. Tyler)