NANNOPSITTACA DACHILLEAE, A NEW SPECIES OF PARROTLET FROM EASTERN PERU

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ABSTRACT.—We describe a new species of parrotlet, Nannopsittaca dachilleae, known from several localities in southeastern Peru and northwestern Bolivia. Its characters place it in the genus Nannopsittaca, which was formerly considered to be monotypic and restricted to the Pantepui region of northern South America. The two species probably form a superspecies.

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In 1985 Munn saw a small group of green parrotlets along the Río Manu in the Parque Nacional del Manu in eastern Peru. The birds were assembled with other parrots and parakeets at a cliff where these birds frequently come to eat clay. Their general size and shape were that of members of the genus Forpus, but they exhibited no sexual dimorphism and could not be assigned to any species recorded within the park or nearby lowlands of eastern Peru. The distinguishing marks were a powder blue wash on the forehead and crown, a pale bare area around the eye, and a pinkish flesh beak and tarsi (see Frontispiece). The birds were photographed, and in later years they were seen repeatedly by Munn and his colleagues. In 1987 O’Neill and colleagues from the Museo de Historia Natural de San Marcos (Lima) and from the Louisiana State University Museum of Natural Science traveled to the upper Río Shesha, Dpto. Ucayali, Peru, to conduct an ornithological survey of the hills and low mountains on the Peru-Brazil border. Their first camp on the banks of the Shesha was near a clump of tall bamboo (Guadua sp., aff. angustifolia, A. Gentry in litt.) that was in seed. Several species of parrots fed upon the abundant bamboo seeds, and on 3 July 1987 two specimens of a suspected Forpus were collected by Pete Marra and Tony Meyer. In the hand, the powder-blue crown was evident and led to the suspicion that these specimens represented the same species that Munn and others had first seen along the Río Manu in 1985. Through the course of the expedition additional specimens were obtained, and it became clear that the bird was probably not a member of the genus Forpus and represented an undescribed species. Subsequently, O’Neill determined that the new parrotlet belongs in the genus Nannopsittaca, whose only previously known species (N. panychlora, the Tepui Parrotlet) is confined to the Pantepui region of southern Venezuela, northern Brazil, and western Guyana. We hereby describe the new bird as follows.

Nannopsittaca dachilleae sp. nov.
Amazonian Parrotlet

Holotype.—Museo de Historia Natural de San Marcos (MHN-SM) No. 11614, adult female, collected ca. 65 km ENE of Pucallpa, right bank of the Río Shesha, Dpto. Ucayali, Peru (8°8'S, 74°2'W), 300 m elevation, collected 29 July 1987.
FRONTISPIECE. Two adult Amazonian Parrotlets (*Nannopsittaca dachilleae*), a new species of parrotlet from eastern Peru, pictured along the upper Rio Shesha. From a mixed media painting by John P. O'Neill. Publication of this Frontispiece was supported by the Donald L. Bleitz Fund.
Description of the holotype.—Upperparts, including nape, auriculus, dorsum, tertials, wing coverts, rump, upper-tail coverts and rectrices, bright green, nearest Parrot Green or Rinne-
man’s Green (capitalized colors are from Ridg-
way 1912). Forehead, anterior crown, and lores
pale, powdery blue, nearest Deep Bluish Glau-
cous or Lumiere Blue, which fades impercep-
tibly into the green of the nape. Below, includ-
ing malar area, breast, belly, and under-tail
coverts paler, more yellowish green, nearest
Mineral Green. Chin greenish yellow, between
Bright Chalcedony Yellow and Chalcedony
Yellow. Primaries and secondaries dusky black
on inner webs, but bright green, between Parrot
Green and Meadow Green, on outer webs. Soft
part colors: iris “gris parduzco” (grayish brown),
bill and feet [incl. tarsi] “rosadas” (pinkish).

Measurements (mm) of the holotype.—Wing
(chord) 81.2; exposed culmen 11.0; depth of
maxilla at base 5.3 (culmen/depth maxilla 2.1);
tail 46.5; tarsus 12.1; outer toe without claw 13.0;
weight 41.0 g.

Distribution.—Known in Peru from the type
locality and along most of the length of the Río
Shesha (Dpto. Ucayali), the middle Río Manu,
the region of the Explorer’s Inn in the Tam-
bopata Reserve (on the Río Tambopata), and the
middle Río Heath (all Dpto. Madre de Dios),
and in Bolivia along the middle Río Heath (Dpto.
La Paz). The Río Heath records, both in Peru
and in Bolivia, are sight records by T. A. Parker
III (Remsen and Traylor 1989).

Etymology.—We take great pleasure in nam-
ing this new parrotlet after our dear friend and
colleague in conservation, Barbara D’Achille,
who died tragically on 31 May 1989 while in-
vestigating reforestation projects in the moun-
tainous Peruvian Department of Huancavelica.
A native of Latvia, she spent most of her 48
years in western Europe, Brazil, Argentina, and
Peru. Before 1983 she devoted her efforts pri-
marily to her family, but did volunteer conser-
vation work in Brazil, Argentina, and Peru. From
1983 until her death, she wrote hundreds of
detailed, firsthand investigative reports on eco-
logy, conservation, and rural development for
Peru’s leading newspaper and news magazine.
By the last three years of her life she had gained
a worldwide reputation as Latin America’s most
committed, most effective, and most published
environmental journalist. During this time she
became a key consultant for the World Wildlife
Fund, the United Nations, and the Canadian
and American development agencies. Her pro-
digious energy and courage in the field, often
in remote or dangerous areas, led her to break
new ground in scientific reporting on the in-
creasingly threatened world-record biological
diversity of Peru. In 1986, her compelling re-
porting from the remotest mountains and for-
est of the country earned her the coveted
Koepcke Prize for Environmental Journalism.
Appropriately, Barbara wrote many of her finest
articles while on expeditions to the rain forests
of Pucallpa, Tambopata, and Manu, where she
was among the first investigators to see the new
species of parrotlet we name in her honor. We
hope that naming this parrotlet after Barbara
will keep her memory alive and inspire young
journalists in Latin America and around the
world to follow her example and fight for the
survival of our planet’s threatened biota.

Remarks

Relationships.—Specimens of Nannopsittaca
dachilleae show all of the characters of the genus
as described by Ridgway (1916; see Appendix),
although a review of the limits and relation-
ships of the genera Bolborhynchus (including the
subgenera Amoropsittaca and Psilopsiagon), Touit,
Forpus, Nannopsittaca, and Brotogeris is needed.
We first thought that the new bird was an un-
described member of the genus Forpus, but its
relatively small bill and total lack of bright blue
in the plumage were obvious even in the field.
Once specimens were available, the length of
the under-tail coverts (as long as the tail in Nan-
lopsittaca, but much shorter in all other related
genera but Touit; Ridgway 1916) was also ob-
vious. Other characters that Ridgway (1916) used
to characterize Nannopsittaca, and which are all
evident in N. dachilleae, include the following:
a narrower, more slender maxilla (7.5 mm for
a male N. dachilleae vs. 9.0 mm for individual
males of Forpus sclateri and F. xanthopterygius,
and up to 14.5 for a male Bolborhynchus orbyg-
nesius); the depth of the maxilla at the base is
equal to or much less than half the length of
the culmen, and the culmen is less strongly
curved; the tarsus is as long as the outer front
toe without the claw; and the tenth (outermost)
primary has the inner web emarginate near the
tip (in Nannopsittaca and Bolborhynchus the out-
ermost primary is less emarginate than in Forpus
and farther from the tip, being only in the distal
few millimeters in Forpus). Although the orbital
region is supposed to be wholly feathered, the new bird in life had an obvious but narrow, bare, pinkish flesh eyering that is made up of skin more than just that which forms the eyelids. This seems to also be present in *N. panychlora*, but is difficult to see in the specimens at hand, in which no obvious extra care went into putting in the eye cotton. The rectrices are wholly green, and there is no hint of bright blue or green on the rump.

*Nannopsittaca dachilleae* differs from *N. panychlora* mainly in having no yellow feathering around the eye and in having the forehead and crown a powdery blue color. Most specimens of *N. panychlora* show some yellow edging to the outer under-tail coverts, which is not present in any of the *N. dachilleae*. Using standard wing, tail, and tarsus lengths, we found no discernible pattern of size differences. One species is slightly larger in some measurements, the other one in others. On average, *N. dachilleae* is larger in tail length and in the depth of the maxilla at its base, but *N. panychlora* is larger in wing chord and in the length of the exposed culmen. The two species differ little in tarsal length and in the length of the middle toe without the claw. Only a single weight is available for specimens of *N. panychlora* (a 42.0-g male), but it fits well within the range of 38.5–46.0 g for males of *N. dachilleae*, and is distinctly heavier than single males of *Forpus sclateri* (28.0 g) and *F. xanthopterygius* (30.5 g). Although *N. panychlora* is called the Tepui Parrotlet, it is now known to regularly inhabit the lowlands around the Venezuelan tepuis (Chris Parrish pers. comm., and recent specimens in the American Museum of Natural History collections from the base of Cerro de la Neblina, T. F. Amazonas, Venezuela). Thus, the lowland distribution of the new bird is not unique for the genus. We believe that because the two species are distinct in color and are not known to occur closer than 1,200 km to each other, they should be regarded as separate species. Comparable color differences define most species currently recognized in the genera *Forpus* and *Bolborhynchus*. There is a slight size difference between males and females, but no obvious color differences. In the sample available, females average just slightly larger than males in the depth of the maxilla at its base. Some of the brightest birds are females, including the holotype, but they can be matched by some males. Although there is no indication of age differences among most of the specimens, duller individuals may be younger. Because *N. panychlora* and *N. dachilleae* are so similar in overall structure but show consistent color differences, and because the two populations are completely allopatric, we believe that they must be treated as separate species. Their similarities indicate a close relationship that is best described by treating them as members of a superspecies.

Because of the difference between the way colors are expressed in Spanish versus in English, we include some of the notes on soft parts taken from the catalogs of English-speaking members of the expedition. Iris: "cinnamon," "buff," "brown"; bill: "pale horn, base of maxilla salmon," "pale horn color," "pinkish flesh"; toes and tarsi: "vinaceous pink," "horn color," "pinkish flesh." These different descriptions mainly reflect different interpretations of the same colors by different preparators.

**Natural history.**—*Nannopsittaca dachilleae* is common to abundant on the upper and middle Río Shesha, but we did not see it on the lower Shesha where the habitat is altered both by man and by the influence of the nearby Río Uayali. In these areas, where *N. dachilleae* is absent, *Forpus xanthopterygius* is common. In totally forested hills near the type locality, we did not see *N. dachilleae*. *Nannopsittaca dachilleae* gathered in flocks of as many as a dozen birds. At the Explorer's Inn in the Tambopata Reserve, the presence of *N. dachilleae* was confirmed first by Theodore A. Parker III on 16 July 1988. In the Manu and Tambopata areas, the species is seen daily in flocks that range from 5 to 12 individuals. In Manu, the species is seen regularly perched in small flocks in the tops of trees across from the Altamira beach, approximately 25 min upstream from the Manu Lodge. In July 1988, K. V. Rosenberg found small groups of *N. dachilleae* feeding in seed-laden *Guadua* bamboo (probably not the same species that was found along the Río Shesha) in the forest at the Tam-bopata Reserve. While feeding, the birds crept about like small arboreal mice and made no sounds. If one bird made even a slight vocalization it was usually the beginning of vocalizations for the entire flock, and they promptly flew away. In March 1986, Munn, D. G. Ricalde R., and B. Ribeiro do Valle repeatedly observed the species at the Altamira beach location in Manu while the birds ate the ripe fruits of a common species of *Coussapoa* (Moraceae) vine. In November 1985, during 2 weeks of continuous observations at a small clay lick on a stream bank 1 h up the Manu River from Cocha Cashu.
Biological Station, 5–7 N. dachilleae appeared every second or third day at about midday with groups of Forpus sclateri, Brotogeris sanctithomae, and B. cyanoptera, and ate clay for 30 min or more (photographs on file in the VIREO collection, Acad. Nat. Sci. Philadelphia).

We found no evidence of nesting on the Rio Shesha. A presumed nest of N. dachilleae was observed at the Tambopata Reserve by K. V. Rosenberg, J. Rowlett, and R. A. Rowlett on 25 July 1988 in the base of a large clump of bromeliads and other epiphytes. Three individuals were "billing," allopreening, and pulling at rootlets. In September 1990, Munn and naturalists of the Explorer's Inn at the Tambopata Reserve observed birds entering a hole in the side of a clump of epiphytes near the top of a 25-m tree, and assumed this to be the same possible nesting site found by Rosenberg et al. in 1988.

The vocalization of the new parrotlet can best be described as like that of a group of peeping domestic chicks (Gallus gallus). Flocks can produce a peeping or squeaking chatter. A single note may be written as a sharp "peek," "peet," or "peep." The notes are reminiscent of those of Forpus xanthopterygius, but unlike the "grating" or gravelly "jiit" or "dziit" notes of F. sclateri. Nannopsittaca dachilleae is syntopic with F. sclateri, but has not yet been found in the more open and disturbed habitats with F. xanthopterygius.

Specimens examined.—All material used in the description is from the following institutions: American Museum of Natural History (AMNH), Louisiana State University Museum of Natural Science (LSUMZ), and Museo de Historia Natural de San Marcos (MHN-SM).


Nannopsittaca panychilora (63, 599): "BRITISH GUIANA": Roraima (AMNH, 19); Carimag River (AMNH, 18). VENEZUELA: Mt. Auyantepui (AMNH, 19); Mt. Duida, high point camp (AMNH, 18, 19); Roraima, Summit Roraima (AMNH, 238, 19); Playa del Rio, base Mt. Duida (AMNH 18, 19); Cerro de la Neblina, T. F. Amazonas (base camp) (AMNH, 18, skeleton and flat skin).

Bolborhynchus lineola (18, 19): PERU: Dpto. Ayacucho, Huanhuachayo (LSUMZ, 18); COSTA RICA: Prov. Cartago; La Georgina (LSUMZ, 19).

Bolborhynchus orbignyesius (18, 19): PERU: Dpto. Pasco; Millpo, E Tambo de Vacas (LSUMZ, 18, 19).

Forpus sclateri (18, 19): PERU: Dpto. Loreto (=Ucayali); Rio Curanja, Balta (LSUMZ, 18); BOLIVIA: Dpto. Pando, Prov. Nicolás Suarez, ca. 12 km by road S Cobija (LSUMZ, 19).

Forpus xanthopterygius (18, 19): PERU: Dpto. Loreto; Isla Pasto, Rio Amazonas opposite Ayasana, ca. 80 km NE Iquitos (18, 19).

Brotogeris cyanoptera (18, 19): PERU: Dpto. Loreto; 1 km N Rio Napo, 157 km by river NNE Iquitos (LSUMZ, 18); Dpto. Loreto [=Ucayali], Rio Curanja, Balta (LSUMZ, 19).

ACKNOWLEDGMENTS

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LITERATURE CITED


**APPENDIX.** Selected characters and measurements of *Nannopsittaca* and related genera. Measurements (mm) are sample size (range) mean ± 1 SD.

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<th>Species</th>
<th>Sex</th>
<th>Weight (g)</th>
<th>Wing</th>
<th>Tail</th>
<th>Tarsus</th>
<th>Middle toe less claw</th>
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<td><em>Nannopsittaca dachiilea</em></td>
<td>M</td>
<td>7 (38.5-46.0) 42.4 ± 2.45</td>
<td>8 (82.0-89.5) 84.4 ± 2.30</td>
<td>8 (42.5-49.5) 45.9 ± 2.34</td>
<td>8 (10.3-12.5) 11.7 ± 0.843</td>
<td>8 (13.0-13.5) 13.5 ± 0.524</td>
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<td>F</td>
<td>11 (37.5-43.8) 40.9 ± 1.90</td>
<td>12 (80.1-85.4) 82.2 ± 1.80</td>
<td>12 (40.2-46.9) 43.1 ± 2.50</td>
<td>12 (9.2-12.6) 11.2 ± 0.99</td>
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<td>6 (40.5-43.4) 42.6 ± 1.10</td>
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<tr>
<th>Species</th>
<th>Exposed culmen</th>
<th>Depth max. at base</th>
<th>Culmen/maxilla depth</th>
<th>Crown color</th>
<th>Under-tail covert length</th>
<th>Outer rectrices color</th>
<th>Emargination of inner web of outer primary</th>
<th>Rump color</th>
<th>Orbital feather color</th>
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<td><em>Nannopsittaca dachiilea</em></td>
<td>M 8 (10.8-12.0) 11.9 ± 0.387</td>
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<td>green</td>
<td>green &amp; powder blue</td>
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</tr>
<tr>
<td><em>Forpus sclateri</em></td>
<td>M 1 (13.3) —</td>
<td>1 (6.2) —</td>
<td>1 (6.2) —</td>
<td>green</td>
<td>&lt; tail</td>
<td>green</td>
<td>strong</td>
<td>purple blue</td>
<td>green</td>
</tr>
<tr>
<td></td>
<td>F 1 (12.2) —</td>
<td>1 (5.5) —</td>
<td>1 (5.5) —</td>
<td>green</td>
<td>&lt; tail</td>
<td>green</td>
<td>strong</td>
<td>purple blue</td>
<td>green</td>
</tr>
<tr>
<td><em>F. xanthopterygius</em></td>
<td>M 1 (12.6) —</td>
<td>1 (6.1) —</td>
<td>1 (6.1) —</td>
<td>green</td>
<td>&lt; tail</td>
<td>green</td>
<td>strong</td>
<td>caerulean blue</td>
<td>green</td>
</tr>
<tr>
<td></td>
<td>F 1 (12.5) —</td>
<td>1 (6.6) —</td>
<td>1 (6.6) —</td>
<td>green</td>
<td>&lt; tail</td>
<td>green</td>
<td>strong</td>
<td>caerulean blue</td>
<td>green</td>
</tr>
<tr>
<td><em>Touti huetii</em></td>
<td>M 1 (14.4) —</td>
<td>3 (7.6) —</td>
<td>1 (1.9) —</td>
<td>brassy yellow</td>
<td>= to tail</td>
<td>purple (M), or yellow (F), tipped black</td>
<td>slight</td>
<td>green</td>
<td>green</td>
</tr>
<tr>
<td></td>
<td>F 1 (12.9) —</td>
<td>1 (6.7) —</td>
<td>1 (1.9) —</td>
<td>green</td>
<td>&lt; tail</td>
<td>green</td>
<td>moderate</td>
<td>green</td>
<td>green</td>
</tr>
<tr>
<td><em>Brotoegeris cyanoptera</em></td>
<td>M 1 (16.8) —</td>
<td>1 (7.8) —</td>
<td>1 (2.2) —</td>
<td>green</td>
<td>&lt; tail</td>
<td>green</td>
<td>moderate</td>
<td>green</td>
<td>green</td>
</tr>
</tbody>
</table>