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### Recent *Aproteles bulmerae* (Megachiroptera : Pteropodidae) bones found in Eastern Highlands Province, Papua New Guinea

by D.D. WRIGHT<sup>1</sup>, A.L. MACK<sup>1</sup>, E.H. PAXTON<sup>2</sup> and J.I. MENZIES<sup>3</sup>

<sup>1</sup>University of Miami, Department of Biology, P.O. Box 249118, Coral Gables, FL 33124, USA

<sup>2</sup>913 Marco Place, Venice, CA 90291, USA

<sup>3</sup>University of Papua New Guinea, Biology Department, Box 320, University P.O., Papua New Guinea

The monotypic genus, *Aproteles* (Megachiroptera : Pteropodidae) was first described from fossil remains in human middens in Chimbu Province, Papua New Guinea (PNG), at 1530 m elevation (Menzies 1977). The fossils were from 12000 to 10000 years old; *A. bulmerae* was believed to have gone extinct 9000 years ago. In 1975, recent *A. bulmerae* specimens were collected from a population in a cave near Telefomin in Western Province, PNG, at 2300 m (Hyndman and Menzies 1980). Upon returning two years later, the bats had been either killed or frightened off (Hyndman and Menzies 1980). Flannery and Seri (1993), upon discovery of a 1984 museum collection specimen of *A. bulmerae*, went to the Telefomin area in 1992 and discovered a population of 137 *A. bulmerae* near the same place Hyndman had found them in 1975. They postulated that survivors from the initial population had produced this new group.

In May 1993 we discovered relatively recent bones from *A. bulmerae* and *Dobsonia moluccensis* in a cave approximately 3 km west of the village of Herowana in the Crater Mountain Wildlife Management Area in Eastern Highlands Province, PNG (approximately 1400 m elevation, 145°10' latitude, 6°39' longitude). These materials from the cave are deposited in the University of Papua New Guinea collection and

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include : *D. moluccensis* : 10 skulls, 15 mandibles (55 mm from anterior point to posterior end of condyle), 5 humeri (85 mm long), and 1 radius (114 mm long); *A. bulmerae* : 1 skull, 7 mandibles (58 mm from anterior point to posterior end of condyle), and 3 humeri (100 mm long). There were approximately 700 large fruit bats in the cave; we did not net the bats and thus could not confirm whether any of the extant bats were *A. bulmerae*. The mouth of the cave was about 30 m across and 15 m high and had an interior cathedral chamber about 30 m diameter with a domed 60 m ceiling. The chamber was about 70 m back and around a bend from the main entrance; most of the bats were here, roosting high in the dome. The cave had a stream running through it and continued about another 200 m back past the cathedral chamber. We found the bones on high ground in the far back portion of the cave and on high ledges.

The local people occasionally hunt the bats by placing bamboo poles in the cave entrance to funnel bats through gaps where they can be killed with bows and arrows. One man said he had a similar cave on his land that once had many bats, but they had hunted them too much and now there were no bats. Although we have informed the local people a rare bat may be living in the cave there is no guarantee more hunting will not occur.

Previous authors (Hyndman and Menzies 1980, Flannery and Seri 1993) believed that extant *A. bulmerae* would only be found in the far western region of PNG and possibly in Irian Jaya. Our discovery extends the recent range of *A. bulmerae* 300 km to the east-southeast. Because much of New Guinea has not been explored biologically, we believe that *A. bulmerae* could exist in other localities as well. Given that local people hunt the bats and that the population and technology of PNG is growing rapidly (i.e., flashlights and shotguns), an effort to search out this rare species and protect it in its vulnerable cave habitats should be encouraged.

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