



## Insects found in birds' nests from Argentina. *Cyanoliseus patagonus* (Vieillot, 1818) [Aves: Psittacidae], with the description of *Cyanolicimex patagonicus*, gen. n., sp. n., and a key to the genera of Haematosiphoninae (Hemiptera: Cimicidae)

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### Abstract

The Burrowing Parrot, *Cyanoliseus patagonus* (Vieillot, 1817) [Aves: Psittacidae], is one of the most southern Neotropical parrots. They require sandstone, limestone, or earth cliffs where they excavate their colonial nest-burrows. Adult *C. p. patagonus* excavate their own nest-burrows, most of them about 1.5 m deep. Each burrow is occupied by a single pair that lay one clutch of two to five eggs per year, directly on the sand of the breeding chamber. The breeding birds abandon the place until the start of the next breeding attempt in the following year. Burrow nests from Río Negro province (Argentina) are inhabited by two ectoparasitic insects, the flea *Hectopsylla narium* (Siphonaptera: Pulicidae), and *Cyanolicimex patagonicus*, gen. n., sp. n. (Hemiptera: Cimicidae). The Río Negro province is the southernmost known limit for Haematosiphoninae in the Western Hemisphere, and *C. patagonicus* is the third Haematosiphoninae with a Psittacidae bird as host. As the South American genera of Haematosiphoninae cannot be separated using the available key due to unsatisfactory characters, the proposition of new characters for the identification of the four South American genera, together with the corresponding modifications to the key, are presented.

**Key words:** Psittacidae, *Cyanoliseus patagonus*, ectoparasites, Cimicidae, Haematosiphoninae, gen. n.

### Introduction

The geographic distribution of the burrowing parrot *Cyanoliseus patagonus* (Vieillot, 1817) [Aves: Psittacidae] shows two disjunctive areas, one in Argentina and the other in Chile (Fig. 1). Four morphological subspecies have been described (Appendix I). Using molecular markers, a moderate differentiation between the Chilean subspecies *C. p. bloxami* Olson, 1995 and the Argentinean subspecies was found. Within Argentina, only the most geographically-separated subspecies [*C. p. patagonus* and *C. p. andinus* Dabbene & Lillo, 1913] (Fig. 1) showed significant but low differentiation, whereas differentiation of the subspecies *C. p. conlara* Nores & Yzurieta, 1984 could not be detected (Klauke *et al.* 2009).

The colony of burrowing parrots from El Cóndor (Argentina: Río Negro) has been widely investigated (Masello *et al.* 2006a 2006b, Masello & Quillfeldt 2002 2003 2005). Counts during the 2001–2002 breeding season showed that the colony extended along 9 km of a sandstone cliff facing the Atlantic Ocean, and contained 51,412 burrows, an estimated 37,527 of which were active (Masello *et al.* 2006a).

Adult *C. p. patagonus* excavate their own nest-burrows or use burrows that they have dug during previous seasons, enlarging them every year (Masello *et al.* 2006a). The nest-burrows are depressed cylinders dug by the burrowing parrots in the softest layers of sandstone, following the stratification of the cliff. The entrances are elliptical with the major axis horizontal (range 14–49 cm) and the minor vertical (range 8–25 cm). In the colony at El Cóndor, most of the burrows are about 1.5 m deep, but can vary from 0.6 m to more than 3.5 m (Masello *et al.* 2006a). The nests terminate in a nest chamber where the nestlings are raised. The nest chamber has approximately the same width as the nest tunnel but is higher because the parrots dig a shallow cavity where the eggs are laid (Masello *et al.* 2006a).