Agreement on the Conservation of Albatrosses and Petrels

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A novel variant of *Babesia* sp. (Piroplasmida) as a hemoparasite in procellariiform seabirds

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SUMMARY

Procellariiformes includes pelagic seabirds that only use land for breeding; and also, these sites mostly occur in insular habitats. These peculiar habits make the investigation of hemoparasites a challenging issue. Thus, the data on the blood parasites of Procellariiformes are still scarce. In the order Piroplasmida, 16 species of Babesia have been described in terrestrial birds and seabirds. However, there is no register for Babesia spp. in procellariiform seabirds. Hence, the objective of this survey was to investigate the occurrence of *Babesia* spp. in these seabirds. A total of 220 tissue samples from 18 different seabird species were analyzed; the samples comprised blood and fragments of liver and spleen. The samples were obtained from live rescued animals and carcasses found along the southern coast of Brazil. Polymerase chain reaction (PCR) was conducted, followed by phylogenetic analysis. Only one blood sample yielded a positive result, from an adult female *Thalassarche chlororhynchos* (Atlantic yellow-nosed albatross). The sequence obtained showed the highest identity with sequences of Babesia spp. of birds from the South Pacific, and the isolate was named Babesia sp. strain Albatross. In the phylogenetic analysis, the sequence was grouped within the Babesia sensu stricto group, and further still into a subgroup including *Babesia* spp. of the *Kiwiensis* clade (parasites from birds). The phylogenetic analysis also showed that *Babesia* sp. strain Albatross clustered apart from the *Peircei* group, a clade that includes *Babesia* spp. from seabirds. As far as it is known, this is the first report of *Babesia* sp. in procellariiform seabirds. *Babesia* sp. strain Albatross may constitute a novel variant of tick-borne piroplasmids associated with the Procellariiformes order.