

Supplemento agli

ANNALI DEL MUSEO CIVICO DI STORIA NATURALE "G. DORIA"
GENOVA

Vol. VII - N. 311

12. IV. 1999

R. JESU (*), F. MATTIOLI (*) et G. SCHIMMENTI (*)

ON THE DISCOVERY OF A NEW LARGE CHAMELEON
INHABITING THE LIMESTONE OUTCROPS
OF WESTERN MADAGASCAR:
FURCIFER NICOSIAI SP. NOV.
(REPTILIA, CHAMAELEONIDAE)

INTRODUCTION - In a widely accepted revision of the family Chamaeleonidae (KLAVER & BÖHME, 1986), Malagasy taxa ascribed to the subfamily Chamaeleoninae have been grouped in two endemic genera: *Furcifer* Fitzinger, 1843 ("defined by the synapomorphic pedunculi and auriculae on the hemipenis apex") and *Calumma* Gray, 1865 (including all the remaining Malagasy species).

While *Calumma* species seem to be rather microthermic and restricted to rainforest habitats, most of the species ascribed to the genus *Furcifer* - which includes the largest known chameleon: *Furcifer oustaleti* (Mocquard, 1894) - inhabit areas characterized by marked dry season and deciduous vegetation types.

Several sources witness the occurrence of two *Furcifer* species within Tsingy de Bemaraha Massif and/or in the area of the nearby village of Antsalova: *Furcifer oustaleti* (BRYGOO, 1971; NICOLL & LANGRAND, 1989; HALLMANN *et al.*, 1990; GLAW & VENCES, 1994; EMANUELI & JESU, 1995) and *Furcifer verrucosus* (Cuvier, 1829) (HALLMANN *et al.*, 1990; EMANUELI & JESU, 1995). Further investigations, carried out on site by Acquario di Genova in 1995 and 1997, lead us to state that the *Furcifer verrucosus* population inhabiting Tsingy de Bemaraha must be considered a new species.

This paper deals with the formal description of this taxon, which joins the list of herpetofauna species apparently restricted to the biodiversity fortress of Tsingy de Bemaraha.

(*) Acquario di Genova - Area Porto Antico, Ponte Spinola - I-16128 Genova (Italy)

MATERIALS AND METHODS - The fieldwork was carried out during the rainy season in February-March 1997 in two sites: the specimens ascribed to the new taxon were collected in the locality of Trano Passage, along the western slopes of the Antsingy forest (18°43'S, 44°43'E; 120-130 m a.s.l.) in the period 2-14 March 1997; the comparative ones were collected in the dune spiny forest close to Anakao village (23°38'S; 43°39'E, 5-10 m a.s.l.) in the period 24-31 March 1997.

Both in the two study areas, the chameleons could be easily observed and collected during the day in activity on bushes and low trees; it was nevertheless easier to spot them at night, while roosting asleep on branches (Fig.1).

After exposure to acetic ether, the died specimens were injected with 70 % ethanol alcohol and preserved in the same solution. Hemipenis evagination was obtained through an ethanol alcohol injection near the base of retractor penis magnus muscle (caudal end of hemipenis pocket). For what regards hemipenis morphology, it has been followed the terminology proposed by KLAVER & BÖHME (1986).

The photographs accompanying the text were taken in the field by G. Schimmenti and R. Jesu. All the drawings of the external morphology of heads and hemipenes were made by F. Mattioli tracing pictures obtained from slides.

In the text, the following museum acronyms have been used: MNHN (Muséum national d'Histoire naturelle, Paris) and MSNG (Museo Civico di Storia Naturale "Giacomo Doria" di Genova).



Fig. 1 Female of *Furcifer nicosiai* sp. nov. roosting on a thin branch and giving support to a calling male of *Heterixalus luteostriatus* (Andersson, 1910).