

**A CASE OF GYNANDROMORPHISM IN *AMBLYOMMA  
VARIEGATUM* FABRICIUS (ACARI: IXODIDAE) IN THE  
REPUBLIC OF GUINEA**

**НАХОДКА ГИНАНДРОМОРФНОЙ ОСОБИ *AMBLYOMMA  
VARIEGATUM* FABRICIUS (ACARI: IXODIDAE)  
В РЕСПУБЛИКЕ ГВИНЕЯ**

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morphism, Guinea.

Ключевые слова: иксодовые клещи, *Amblyomma variega-  
tum*, гинандроморфизм, Гвинея.

**ABSTRACT**

During an investigation of ixodid ticks in the Republic of Guinea in 1981-1987, one gynandromorph was found of *Amblyomma variegatum* Fabricius. This specimen was collected on the live-stock in July 1987 near Kindia town and had signs of both a male and a female. This was the first case of ixodid tick gynandromorphism noted in that country.

**РЕЗЮМЕ**

Среди иксодовых клещей, собранных в Республике Гвинея в 1981-1987 гг., обнаружена гинандроморфная особь *Amblyomma variegatum*. Данный экземпляр, снятый со скота в июле 1987 г. вблизи города Киндия, имел признаки самца и самки. Это первая находка гинандроморфной особи в данном регионе.

## INTRODUCTION

The cases of gynandromorphism in ixodid ticks of Africa are rare but have been noted repeatedly in the literature [Brumpt, 1934; Dias, Santos, 1953; Rechav, 1977; Mwase et al., 1986, etc.]. In the present communication, a case of gynandromorphism in adult tick *Amblyomma variegatum* Fabricius is described. This specimen was collected on live-stock in 1987 during a study of ixodid ticks of Guinea as arbovirus reservoir and vectors.

## MATERIALS AND METHODS

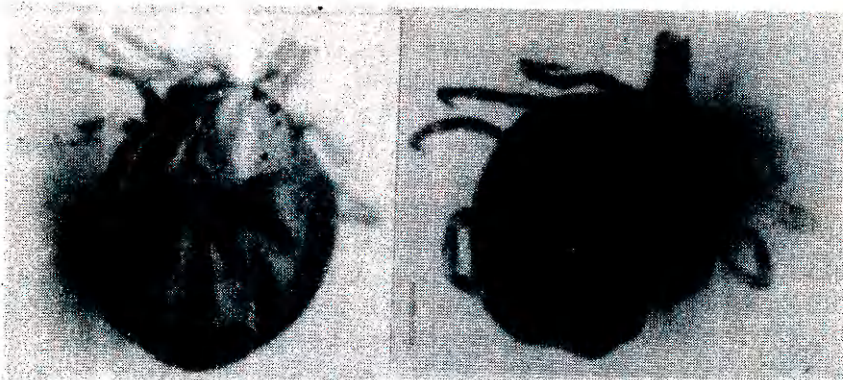
The ixodid ticks were collected by the following methods: by hand on live-stock, dogs, wild animals (captured in the nature), and on vegetation by flagging. The most efficient method was based on collecting ticks on live-stock in the parks. The most abundant species was *A.variegatum*. During the period of investigations, about 5000 specimens of this species have been collected.

## RESULTS AND DISCUSSION

The only gynandromorphous specimen of *A.variegatum* was found on July 27, 1987 on cattle in the park of Bonton, 35 km ENE from Kindia town. The signs of gynandromorphism were the following: left dorsal half and left capitulum were typical of a male, whereas the right ones were as in a female (Fig.1). On the ventral side, the genital foramen was as usual at the first coxa level, and the anus, at the forth coxa level, the latter, however, being noticeably displaced sideways (Fig.2).

In his first description of the phenomenon of gynandromorphism in ixodid ticks in Argentina, Brumpt [1934] reported 3 cases of such abnormality: in *Amblyomma dissimile*, *A.variegatum*, and *Rhipicephalus bursa*. All of them differed from the case being discussed herein, since it was the right body half of Brumpt's specimens that was as in a male and the left one as in a female. A similar case was reported by Rechav [1977] for the South African tick *Amblyomma hebraeum*. Mwase et al.[1986] described a gynandromorph of *Rhipicephalus appendiculatus*. Their specimen had most of its body like that of a male, and only the lowest part as in a female. The gynandromorphous forms in ixodid ticks are

A CASE OF GYNANDROMORPHISM IN *AMBLYOMMA VARIEGATUM*



Gynandromorph of *A. variegatum*:  
Fig. 1. — dorsal view; Fig. 2. — ventral view.

therefore diverse; they have been supposed to be caused by some hereditary factors [Clarcke, Rechav, 1992]. Most authors consider them a rare phenomenon.

Similarly, during the seven years of our investigations of the ixodid ticks in Guinea [Konstantinov et al., 1990], only one case of gynandromorphism has been observed. However, taking into account the great specific variety of the Guinean ixodid fauna, this phenomena in ticks may be discovered again.

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M.C.Balde, O.K.Konstantinov

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