

THE KARYOTYPES OF SOME DRAGONFLIES FROM KENYA AND SUDAN

Travelling from Nairobi to Khartoum in January-February 1981, I collected dragonflies for cytotaxonomical study. Thirteen species were examined, the 6 asterisked (\*) are new to cytology.

The localities visited at Nairobi, Kenya were: (1) Nairobi Park, Jan. 19; — (2) Nairobi river, Jan. 20; — (3) railwaystation, Jan. 21. The localities visited in Sudan were: Juba, White Nile, Feb. 7 & 10; and the Imatoung Mountains: brook S of Gilo, alt. 2000 m approx., Feb. 12.

The following is a list of taxa studied.

Coenagrionidae — *Enallagma subfurcatum* Selys\* (♂, Nairobi, loc. 2). — n=14. In the early metaphase the X element is clearly the smallest in the set. One autosome can be discerned by its larger size.

Aeshnidae — *Anax imperator* Leach (♂, Nairobi, loc. 2). — n=14.

Libellulidae — *Atoconeura biordinata* Karsch\* (♂, Imatoung Mountains). — n=11 (m). Except for two larger autosomes, the bivalents are gradually decreasing in size. Two medium sized autosomes seem to be terminally

attached to each other most of the time, forming three chiasmata. The *m* is extremely minute.

*Brachythemis lacustris* Kirby\* (2 ♂, Juba). — *n*=13 (*m*). The autosomes are all large, while the X and the *m*-element are approximately of the same small size.

*Nesciothemis farinosum* (Foerster) (♂, Nairobi, loc. 2). — 13 (*m*). Only the mitotic number had previously been recorded (cf. B. KIAUTA, 1969, *Arnoldia, Rhodesia*, 4(15): 1-8).

*Orthetrum chrysostigma* (Burm.) (♂, Nairobi, loc. 3). — *n*=13 (*m*).

*Orthetrum julia falsum* Longf. (3 ♂, Nairobi, loc. 1). — *n*=13 (*m*). No aberrations from the

type recorded from southern Africa (J.W. BOYES et al., 1980, *Odonatologica* 9(2): 131-145) can be found.

*Palpopleura lucia portia* (Drury) (♂, Nairobi loc. 2). — *n*=13 (*m*). There seems to be more gradation in size than in western Africa (B. KIAUTA & G.A. BOON VON OCHSSÉE (*Odonatologica* 8(1): 47-54).

*Trithemis annulata* (P. de Beauv.) (2 ♂, Juba). — *n*=13 (*m*). From South African material no *m*-element was recorded (J.W. BOYES et al., 1980, cf. above).

*Trithemis furva* Karsch\* (2 ♂, Nairobi, loc. 2). — *n*=13 (*m*).

*Trithemis kirbyi ardens* Gerstaecker (♂, Nairobi, loc. 2). — *n*=13 (*m*).

*Trithemis wernerii* Ris\* (♂, Nairobi, loc. 2) (♂, Juba). — *n*=13 (*m*). In the Sudanese material (Fig. d) the *m*-element has a minute size, while in the Kenyan material (Fig. e) the *m*-element is about the same size as the X element. This is the second pronounced case of geographical variation in a member of this genus. It has been previously recorded in *T. aurora* from India (cf. B. KIAUTA, 1975, *Cytotaxonomy of dragonflies with special reference to the Nepalese fauna*, Nepal Research Center, Kathmandu).

*Urothemis edwardsi* Selys\* (2 ♂, Juba). — *n*=13 (*m*). At early metaphase I the bivalents are of gradually decreasing magnitude, while two somewhat larger elements can be discerned in most figures. The sex-element is the second smallest of the set.

The slides were made on the spot in the field. Later they were Feulgen stained, made permanent and photographed. All material, specimens, slides and films are in the collection of Professor B. Kiauta, Utrecht.

Thanks are due to Dr E. PINHEY (Tutshill, Gloucestershire, U.K.), for identification of the material.

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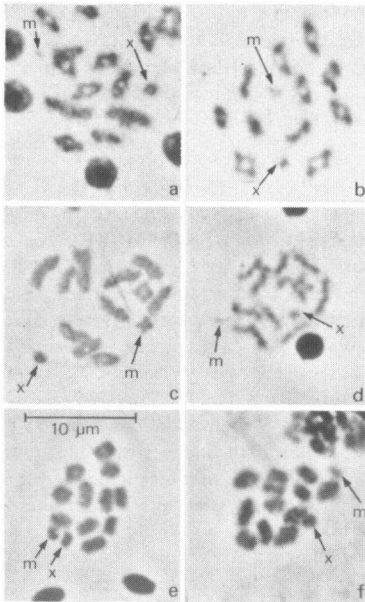


Fig. 1. Male germ cell chromosomes of five Anisoptera from Kenya and Sudan: (a) *Ataconeura biordinata* Karsch, early metaphase; — (b) *Brachythemis lacustris* (Karsch), early metaphase; — (c) *Nesciothemis farinosum* (Foerster), early metaphase; — (d-e) *Trithemis wernerii* Ris, early metaphase (d), and metaphase I (e), note the smaller *m*-element in Fig. d; — (f) *Urothemis edwardsi* Selys, metaphase I.