Manila, 26-VII. — n=14. At Im, X the smallest of the set, the smallest autosome bivalent clearly recognizable.

Cercion malayanum (Sel.) — 1 ♂, Manila, 26--VII. — n=14, *m*. The karyotype is almost identic to that from Nepal (cf. B. KIAUTA, 1975, *Cytotaxonomy of dragonflies, with special reference to the Nepalese fauna*, pp.43, 72, fig. 5. Nepal Research Center, Kathmandu).

Ceriagrion lieftincki Asahina — 2 ♂, La Trinidad, 29-VII. — 2n=27, n=14. At Im, X large, the bivalents almost identic in size, and chiasma formation almost synchronous in all elements (cf. Fig. 1).

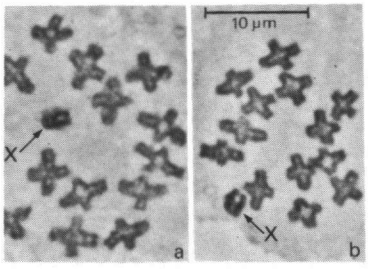

Fig. 1. *Ceriagrion lieftincki* Asahina: late spermatocyte diakinesis / metaphase I. Note the almost synchronous chiasma formation. (Feulgen squash, X 1500).

FURTHER NOTES ON PHILIPPINE ODONATE KARYOTYPES

Our 1980 stopover in the Philippines coincided with the occurrence of the typhoon "Osang" (July 25), hence the collecting results were this time again far from spectacular (cf. B. KIAUTA & M.A.J.E. KIAUTA, 1980, *Odonatologica* 9: 237-245; – 1981, *loc. cit.* 10: 151-154). Due to the weather conditions we remained grounded in Manila during July 24-26 (Rizal Park collection), and left subsequently for Baguio, Benguet Province, in the northern Luzon. Hindered by frequent showers, we were able to do some collecting (July 28-29) in the hilly area between the Baguio Airport (alt. 4921 ft) and La Trinidad. In all, the Philippine visit yielded only 11 cytologically examined species, among which there are a few taxa that are either new to cytology *(Ceriagrion lieftincki)*, or whose karyotypic morphology is of some interest for other reasons *(Crocothemis servilia, Orthetrum sabina, Trithemis pallidinervis)*.

Agriocnemis f. femina (Brauer) 1 ♂, Manila, 26-VII. — n=14. At Im, X the smallest of the set, the smallest autosome bivalent clearly recognizable.

Ischnura senegalensis (Ramb.) — 1 ♂, Manila, 26-VII; 3 ♂, La Trinidad, 29-VII. — 2n=27, n=14. The two populations are identic, and agree with the earlier description of the Philippine material. In the absence of an *m*-pair the Philippine specimens essentially differ from all other Asiatic and African populations of this species (cf. KIAUTA & KIAUTA, 1980).

Pseudagrion microcephalum (Ramb.) [ssp.] - 2 ♂, Manila, 24 27-VII. - 2n=27, n=14, *m*; at diakinesis often 2 chiasmata in one of the medium-sized bivalents.

Crocothemis servilia (Dru.) 1 ♂, La Trinidad, 30-VII. 2n=25, n=13, *m* minute. It seems clear now that the n=13 (XO) "form" of *servilia* occurs throughout the Philippines.

Diplacodes trivialis (Ramb.) 1 ♂, Manila, 26-VII. – 2n=27, n=13, *m*.

Orthetrum luzonicum Brauer 1 ♂, Baguio, 28-VII. n=13, *m*. The nuclei are very small, and the karyotypic morphology is indentic to

the Nepalese material (cf. KIAUTA, 1975, pp. 45, 76, fig. 32).

O. s. sabina (Dru.) — 1 ♂, Manila, 24-VII. — 2n=25, n=13, *m*. At Im, X medium-sized, *m* extremely minute. In this feature the Philippine specimen differs from all other populations so far studied.

Trithemis aurora (Burm.) — 1 ♂, Manila, 26--VII. — n=13, *m*. At Im, X and *m* similar in size.

T. pallidinervis (Kirby) — 1 ♂, Manila, 24--VII. — n=13, *m*. In our specimen the *m*--bivalent is significantly smaller than the X at Im, indicating the occurrence of a very appreciable individual karyotypic variation in this species (cf. KIAUTA & KIAUTA, 1980).

All specimens and slides are in the authors' collection. The "results" of our brief Baguio trip would be even more meager, if it were not for the information on localities, rendered by Rev. Prof. Dr GERARD BRAECKMAN, Dean of the College of Natural Sciences, Saint Louis University, Baguio, who also brought us in touch with Prof. ESTEBAN B. AKIEW, Head of the Biology Department, Mountain State Agricultural College, La Trinidad. In his turn, Professor Akiew delegated one of his students, Mr JONES GAS-IB, to accompany us to the nearby fisheries, where we enjoyed the hospitality of Mr NARCISO M. LIGERALDE, District Fishery Officer of the Bureau of Fisheries and Aquatic Resources. Mr Gas-ib was also greatly helpful in field collecting. Herewith we are extending our warmest thanks to all the persons mentioned.

For the sake of record it should be mentioned here that Professor Akiew told us the dragonflies are called "*shu-shu-ti*" in his native Ibaloy dialect. (The general Philippine expression is "*tu-tu-bi*").

B. Kiauta and M. Kiauta, Department of Animal Cytogenetics and Cytotaxonomy, University of Utrecht, Padualaan 8, Utrecht, The Netherlands.