Research Note

BRIEF NOTES ON THE CYTOLOGY OF NEOTROPICAL COLEOPTERA. III. "LUPERODES ANTILLARUM BLAKE" = LYSATHIA LUDOVICIANA (FALL)[1]

In 1937 Blake[2] described a new West Indian galerucine *Luperodes antillarum,* very similar "to *Altica occidentalis* Suffrian in color, approximate size and host."[3] The similarity extends in a very significant way to the endophenotype: *L. antillarum* has the same karyotype formula, 11 II + *X* + *y* (fig. 1), that characterizes the cosmopolitan genus *Altica* and the related *Lysathia* and *Hermaeophaga.*[4] The amphioriented, distance-pairing sex chromosomes of these karyotypes are a rarity that does not arise frequently (other, clearly polyphyletic cases are known: a few beetles, Tipulidae, and almost all of Neuroptera[5]). The ten Luperini karyotypes known,[5] including the 15 + neo*XY* in *Luperodes praeustus* Mots.,[6] are not closely related with 11 II + *X* + *y,* but show a

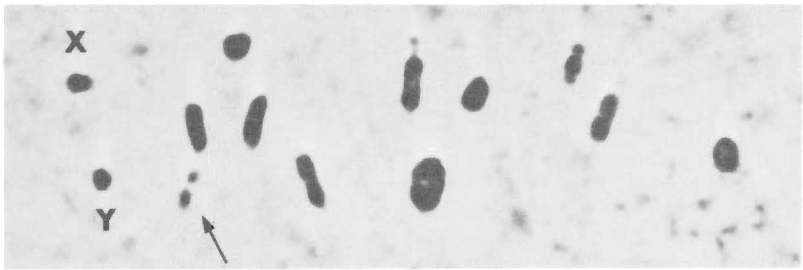

FIG. 1.—*Lysathia ludoviciana.* M I:[11]II + *X* + *y.* This is a relatively size-asymetrical karyotype having, as many Alticini karyotypes have, a pair of minute chromosomes (arrow). Phase contrast, 3062 ×.

tendency to increased autosomal numbers and to neo-sex chromosome systems derived through translocations.

This evidence suggests that "*Luperodes antillarum*" is not a galerucine, but a fleabeetle belonging, most probably, to the genus *Altica.* This

[1] Manuscript submitted to Editorial Board May 4, 1978.

[2] Blake, D., Ten new species of West Indian Chrysomelidae (Coleoptera), Proc. Entomol. Soc. Wash. 39: 67–88, 1937.

[3] Wolcott, G. N., The insects of Puerto Rico, J. Agri. Univ. P.R. 32: 225–416, 1948.

[4] Virkki, N., Sex chromosomes and karyotypes of theAlticidae (Coleoptera), Hereditas 64: 267–282, 1970.

[5] Smith, S. G., and Virkki, N., Coleoptera, in: B. John, Ed, Animal Cytogenetics, Borntraeger, Berlin (in press).

[6] Yosida, T., Chromosome studies in Coleoptera. III., Jap. J. Genet. 24: 156–162, 1949.

[7] Martorell, L. F., Annotated food plant catalog of the insects of Puerto Rico, Agri. Exp. Stan., Univ. P. R., 303 pp., 1976.

was indeed confirmed by Mrs. Doris Blake herself. As the phantom taxon "*Luperodes antillarum*" still may linger in collections and modern literature,[7] I feel necessary to cite Blake:[8] "I am amused by the relationship that you have found between *Luperodes antillarum* and *Altica occidentalis*. Many years ago when I was arranging the West Indian Collection I placed *antillarum,* an undetermined specimen, with *Altica*. And H. S. Barber came along and said that I had put a *Luperodes* with *Altica* and made much of it, and I said if it was *Luperodes* it was new and described it. Later I looked at Fall's *Altica ludoviciana* and saw Fall had also decided it was *Altica*. Somewhere I have corrected my mistake—it is an *Altica,* with the typical *Altica genitalia.*"

Because Bechyné[9] placed small *Altica* species with light-colored legs and swollen femurs into a new genus, *Lysathia,* the species must now be called *Lysathia ludoviciana* (Fall). Synonymy with *Lysathia integricollis* (Har.) is possible, however.[10]

The case shows how difficult it is sometimes, even to experienced specialists, to distinguish primitive fleabeetles from galerucines, and how extension of the comparison to endophenotype can be of decisive importance.

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[8] Blake, D., Personal communication, 1967.

[9] Bechyné, J., Beiträge zur Kenntnis der Alticidenfauna Boliviens, Beitr. Neotrop. Fauna I (4): 269–388, 1959.

[10] Bechyné, J., Personal communication, 1967.