

Despite the many thousands of *ch cu* chromosomes that we have observed —either in heterokaryotypic F_1 larvae or directly in *ch cu* strain larvae— over the long period elapsed, we had never detected any discordant arrangement in *ch cu* chromosomes.

During one of our *in situ* hybridization experiments, we realized that the pair of E chromosomes from one *ch cu* larva was heterokaryotypic for an inversion (Figure 1). We could readily discard an accidental contamination of the *ch cu* strain from other *D. subobscura* strains of the Barcelona area maintained in our laboratory, since the rest of chromosomes were homokaryotypic for the *ch cu* strain arrangements A_{st} , J_{st} , U_{st} , and O_{3+4} , which are at rather low frequency in the Barcelona area. Moreover, upon closer inspection of the inversion span, we could confirm that this was a new inversion, since its cytological breakpoints correspond to sections 63C/64A and 70C/70D of the Kunze-Mühl and Müller (1958) map, which are not shared by any other spontaneous known inversion. We named this inversion E_{24} .

The spontaneous origin of a new inversion in a laboratory strain that is normally used to determine the karyotype of wild-caught individuals might raise concerns relative to the identification of inversions newly originated in natural populations. Indeed, if the rate of origin of inversions in laboratory strains were high — which does not seem to be the case for the *ch cu* strain—, some of the inversions newly described as having originated in natural populations might have actually originated in the laboratory strain used to karyotype wild-caught individuals.

References: Balanyà J., L. Serra, G.W. Gilchrist, R.B. Huey, M. Pascual, F. Mestres, and E. Solé 2003, *Evolution* 57(8): 1837–1845; Gosteli, M., and E. Hauschteck-Jungen 1989, *Genetica* 79: 115–120; Krimbas, C.B., 1992, In: *Drosophila Inversion Polymorphism* (Krimbas, C.B., and J.R. Powell, eds.), pp. 127–220. CRC Press, Boca Ratón; Kunze-Mühl, E., and E. Müller 1958, *Chromosoma* 9: 559–570; Orengo, D.J., 1992, *Correlación entre el polimorfismo cromosómico y el tamaño del cuerpo en Drosophila subobscura*. Ph.D. thesis. Universitat de Barcelona, Barcelona. 173 pp; Orengo, D.J., and A. Prevosti 1992, *Dros. Inf. Serv.* 71: 159–160; Orengo, D.J., E. Puerma, M. Papaceit, C. Segarra, and M. Aguadé 2015, *Heredity* 114: 610–618; Prevosti, A., G. Ribó, M.P. García, E. Sagarra, M. Aguadé, L. Serra, and M. Monclús 1982, *Actas V Congr. Latinoam. Genética* p: 189–197; Segarra, C., and M. Aguadé 1992, *Genetics* 130: 513–521; Zouros, E., and C.B. Krimbas 1973, *Genetics* 73: 659–674.



Abnormal ovipositor in a *Drosophila melanogaster* female.

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While collecting virgin females from a wild stock, we found a female with an abnormal ovipositor (Figures 1, abnormal; Figure 2, normal). The stock was obtained from wild *D. melanogaster* flies collected at the Font Gropa site, near Barcelona, in autumn 2012 (Canals *et al.*, 2013). Unfortunately, it was not possible to cross this female, and we did not have any information on her parents because she appeared in a mass culture.

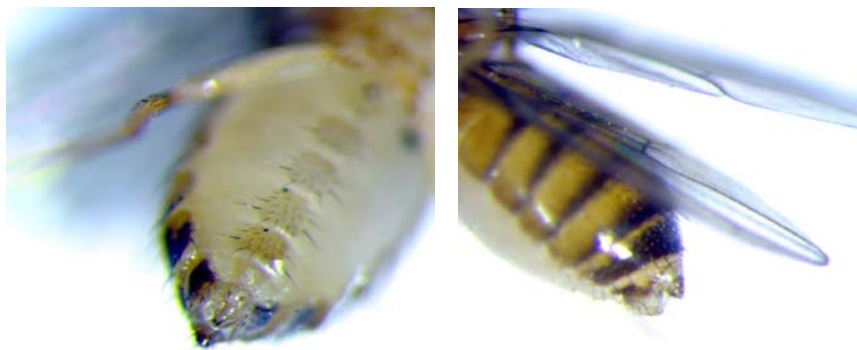


Figure 1. Abnormal ovipositor (ventral and lateral views).

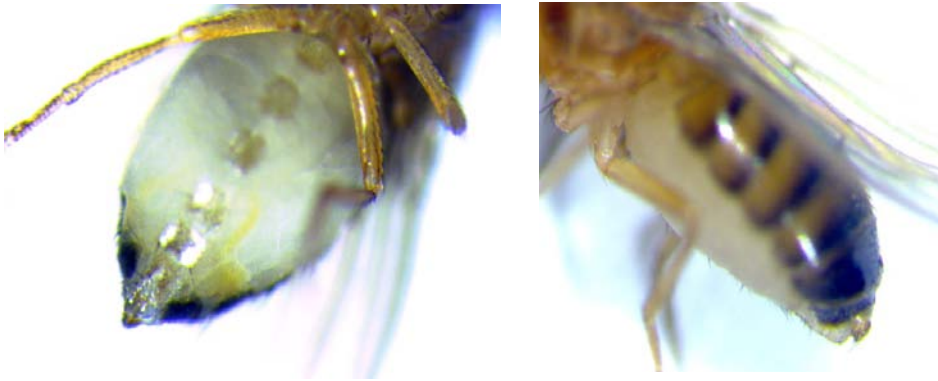


Figure 2. Normal ovipositor (ventral and lateral views).

References: Canals, J., J. Balanyá, and F. Mestres 2013, Dros. Inf. Serv. 96: 185-186.