

concerned, such species as *D. eohydei* and *D. neohydei* differ each from *D. hydei* in a more evident manner than *D.sp.99-19-01(IvAn)* does (this comparison I carried out making use of photos in Glatzer, K.H., 1973. The Status of *Drosophila pseudoneohydei*, Dros. Inf. Serv. 50: 47). At the same time, in coloration of integuments *D.sp.99-19-01(IvAn)* differs from *D. hydei* as well as from *D. mercatorum* and *D. repleta*, i.e. from all cosmopolitan species of the *repleta* group. These differences are as below: 1. Background coloration of integuments of *D.sp.99-19-01(IvAn)* is much brighter than that of *D. hydei* and is similar to that of *D. immigrans*; 2. *D.sp.99-19-01(IvAn)* lacks the spotted coloration of mesotonum typical for all cosmopolitan species of the *repleta* group (for *D. hydei*, in particular) but has instead a plain dark-yellow mesotonum. In some flies an even brown stripe can be seen along the central line of mesotonum at its full length. The only similarity in coloration of integuments between *D.sp.99-19-01(IvAn)* and *D. hydei* is the coloration pattern of abdominal segments: dark stripes at the back edge of tergites, which is typical for the last of these two species. These stripes are gapped at the back midline and dilated on the sides to the full width of the segment. It is worthwhile to note another remarkable fact about *D.sp.99-19-01(IvAn)* morphology. In two males a wing aberration was detected, which is absolutely identical to the aberration found everywhere and with high frequency in Russian populations of *D. mercatorum* and which we designated as phenA (see our communication "The fashion on mutation in Russian populations of *D. mercatorum*" in that volume of DIS). In both *D.sp.99-19-01(IvAn)* males the aberration is asymmetrical and affects only the left wing. Expression of that aberration in both males can be described as weak.



Drosophila repleta - the first record in Siberia.

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Over several recent years *Drosophila mercatorum* has been the most numerous species among synantropic *Drosophila* in Novosibirsk city (Western Siberia) (Ivannikov and Zakharov, 1995). In late 1999 and early 2000 we obtained collections of synantropic *Drosophila* of Novosibirsk in order to study population genetics of that species. One of eight collections contained 149 *Drosophila mercatorum* and 3 *Drosophila repleta* flies. Synantropic species *Drosophila repleta* is new for Western Siberia. The recently published and rather representative record of Drosophilidae of Eastern Siberia and Russian Far East presented by Masanori J. Toda with co-authors is also lacking *Drosophila repleta* (Toda *et al.*, 1996).

It is worth noting that over the vast territory of former USSR this species is rather rare. In the list of species of the genus *Drosophila* in Key to Insecta of European USSR, *Drosophila repleta* is also lacking (Stackelberg, 1970). There are reports about occurrence of *Drosophila repleta* in the Caucasus and Transcaucasian area (Mitrofanov, 1977). We found this species only once in Uman city, Ukraine (Eastern Europe) in 1990 (Ivannikov and Zakharov, 1994).

References: Ivannikov A.V., and I.K. Zakharov 1994, Dros. Inf. Serv. 75: 108-109; Ivannikov, A.V., and I.K. Zakharov 1995, Dros. Inf. Serv. 76: 107; Mitrofanov, V.G., 1977, In: Problemy genetiki v issledovaniyakh na drozofile (*The Problems of Genetics in Drosophila Studies*), (Khvostova, V.V. *et al.*, eds.), pp. 7-18. Nauka, Novosibirsk. [in Russian]; Stackelberg, A.A., 1970, Fam. Drosophilidae. In: Opredelitel nasekomykh evropeiskoi tchasti SSSR (Key to Insecta of

European USSR), (Bey-Bienko, G.Ya., ed.), vol. 5(2), pp.390-399. Nauka, Leningrad. [in Russian]; Toda, M.J., V.S. Sidorenko, H. Watabe, S.K. Kholin, and N.N. Vinokurov 1996, A revision of the Drosophilidae (Diptera) in East Siberia and Russian Far East: taxonomy and biogeography. Zoological Science 13: 455-477.



An extraordinarily high frequency of a particular morphological aberration in *Drosophila mercatorum* in different regions of Russia. The fashion on mutation?

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In early March 2000, while examining synantropic *Drosophila* just collected in a flat in Novosibirsk city I noticed that many of the *Drosophila mercatorum* flies carried the same morphological aberration of a wing. The pattern of this aberration is as follows: the structure in the shape of a short longitudinal vein occurs in the distal part of a wing, in wing cell N4 between L3 and L4 longitudinal veins. Under maximum expression the length of that aberrant vein equals the span between the ends of L3 and L4 veins. Under minimum expression it looks like a dim spot equal in diameter to the thickness of a normal vein. The aberrant vein is not connected to natural veins of the wing (it is not a kind of their spur) and is an independent structure in the distal part of cell N4 (see Figure 1). Individual expression of that aberration ranges from perfect symmetry with maximum

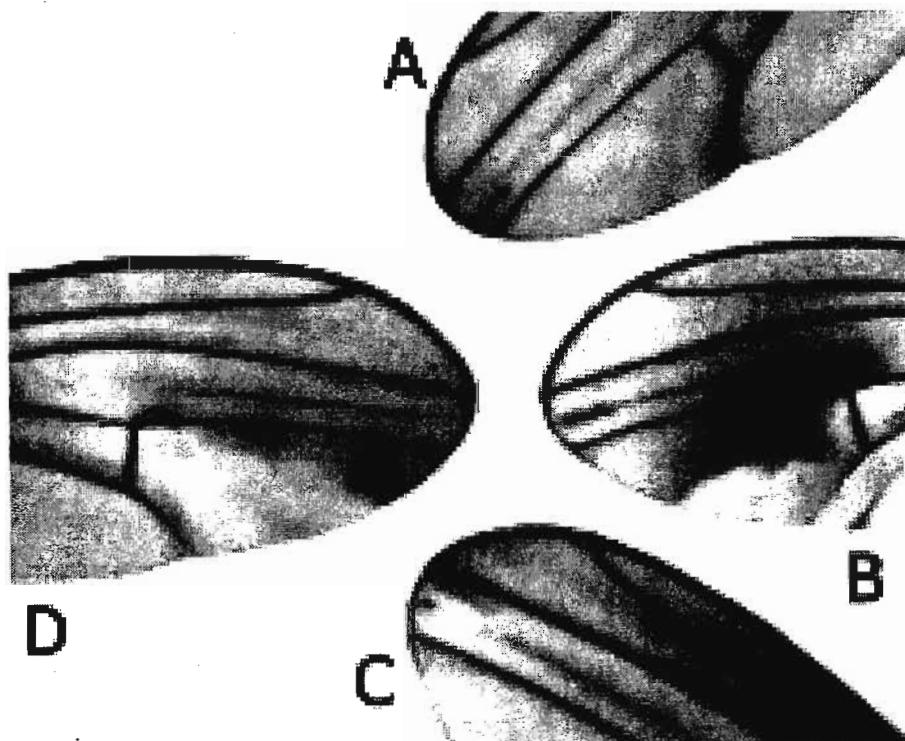


Figure 1. Pictured fenA - abnormal vein between the distal ends of L3 and L4; A, fenA strong; B, fenA moderate; C, fenA weak; D, normal.