

have a greater survival under crowding conditions than the homokaryotypes. This property, along with their known superiority in longevity, mating, and rate of development, could contribute to the explanation of the high frequency of these heterokaryotypes in all the natural populations of *D. pavani* investigated.

References: Ayala, F.J., 1970 In: Essays in Evolution and Genetics in Honor of Th. Dobzhansky, M.K. Hecht and W.C. Steere, Eds. (Appleton Century-Crofts, New York): 121-158; Brncic, D. and E. del Solar, 1961 Amer. Nat. 95: 211-216; Brncic, D. and S. Koref-Santibañez 1964 Genetics 49: 585-591; Brncic, D., S. Koref-Santibañez, M. Budnik and M. Lambrot, 1969 Genetics 61: 471-478.

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Miller, D.D. and A.J. Kleager. University of Nebraska, Lincoln, Nebraska. Some additional data and a summary on interspecific mating in the *D. affinis* subgroup.

The following table has been put together from some very old unpublished data (circa 1940, D. D.M., designated by "M") on interspecific inseminations between *D. affinis* subgroup species in 10-day, "no-choice" combinations and some recent similarly derived data on combinations

with *D. narragansett* (by A.J.K., designated by "K"; from Master's thesis, University of Nebraska, 1970). The older work involved various mutant strains, now defunct, the recent work a variety of wild and mutant strains. Frequencies are presented as raw insemination fractions. The data are supplemented by published insemination frequencies with *D. tolteca* (Ensign, 1960) and by reference to known cases of interspecific hybrids (including one newly reported here, from *narragansett* ♀ x *affinis* ♂). Despite the smallness of some of the numbers and the unequal attention to the different combinations, it is believed the table may be worthwhile to persons interested in this species group since it illustrates how at least some insemination has been encountered in 20 out of the 30 possible interspecific combinations of the six major American *D. affinis* subgroup species, eight combinations of which yield hybrids, of which three kinds manifest some fertility.

- D. *affinis* ♀♀ x *algonquin* ♂♂: 0/56 "M"; x *athabasca* ♂♂: 158/431 "M", very few sterile HYBRIDS (Miller, Amer. Nat. 84: 81-93, 1950); x *azteca* ♂♂: 0/57 "M"; x *narragansett* ♂♂: 0/50 "M" and 0/87 "K"; x *tolteca* ♂♂: 31/107 (Ensign, Evolution 14: 378-385, 1960).
- D. *algonquin* ♀♀ x *affinis* ♂♂: 0/52 "M"; x *athabasca* ♂♂: 3/144 "M", few fertile ♀♀ and sterile ♂♂ HYBRIDS (Miller, 1950); x *azteca* ♂♂: 0/52 "M"; x *narragansett* ♂♂: 10/225 "M" (some cultures gave few matroclinous offspring; nonvirginity?) and 2/62 "K"; x *tolteca* ♂♂: 1/104 (Ensign, 1960).
- D. *athabasca* ♀♀ x *affinis* ♂♂: 14/281 "M"; x *algonquin* ♂♂: 0/159 "M"; x *azteca* ♂♂: 9/53 "M", sterile HYBRIDS including dwarf ♂♂ (Sturtevant and Dobzhansky, Amer. Nat. 70: 574-584, 1936); x *narragansett* ♂♂: 0/56 "M" and 3/87 ("western" ath), 2/61 ("eastern" ath.) "K"; x *tolteca* ♂♂: 19/118, 8/66, 21/59, sterile HYBRIDS (Ensign, 1960).
- D. *azteca* ♀♀ x *affinis* ♂♂: 0/52 "M"; x *algonquin* ♂♂: 0/61 "M"; x *athabasca* ♂♂: 44/59 "M", sterile HYBRIDS including large-winged ♂♂ (Sturtevant and Dobzhansky, 1936); x *narragansett* ♂♂: 0/54 "M" and 1/55 "K"; x *tolteca* ♂♂: 35/115 (Ensign, 1960), sterile HYBRIDS (Patterson, Univ. Texas Publ. 5422: 46, 1954), fertile ♀ but sterile ♂ HYBRIDS (Miller and Sanger, Amer. Midl. Nat. 82: 618-621, 1969).
- D. *narragansett* ♀♀ x *affinis* ♂♂: 0/55 "M" and 2/92 "K" with single sterile, poorly viable ♂ HYBRID; x *athabasca* ♂♂: 0/57 "M" and 0/68 ("western" ath.), 11/101 ("eastern" ath.) "K"; x *azteca* ♂♂: 0/52 "M" and 1/68 "K"; x *tolteca* ♂♂: 2/64 (Ensign, 1960), 0/56 "K".
- D. *tolteca* ♀♀ x *affinis* ♂♂: 25/105 (Ensign, 1960); x *algonquin* ♂♂: 12/104 (Ensign, 1960); x *athabasca* ♂♂: 60/102, 17/60, 34/53 (Ensign, 1960); x *azteca* ♂♂: 58/109 (Ensign, 1960), fertile HYBRIDS of both sexes (Patterson, 1954); x *narragansett* ♂♂: 13/98 (Ensign, 1960), 1/66 "K".