in a different way from the usual. One possible explanation for this could be that ultrasonication alters the chemical and/or physical properties of the chromosomal DNA structure or composition.

Although this work took place in vitro and salivary glands were used, these findings require further attention because ultrasonics are utilized in research and applied science such as obstetrical medicine.

Reference: Strickberger, M.W. 1962, in: Experiments in Genetics with Drosophila, ch. 18, p. 103, John Wiley & Sons, Inc., New York-London.

Turner, M.E. University of Georgia, Athens, Georgia. A laboratory overwintering experiment with D. montana and D. pseudoobscura.

Drosophila which live at high elevations are subject to low temperature extremes during the winter months. At elevations 7000 ft. and above low temperatures and/or snow cover may last six months or longer. For these populations of Drosophila to persist either some stage (or stages) of the life cycle must overwinter or a new population must be founded each spring from lower elevation populations of the same species. D. montana and D. pseudoobscura were tested to determine their ability to endure cold temperatures for an extended period of time. D. montana were obtained from the University of Texas Stock Center (#1218.8d); this strain was originally captured from Ogden, Utah and has been in the laboratory since 1941. The D. pseudoobscura were collected from American Fork Canyon, Utah (elev. 7550) in 1976.

Flies were kept in half-pint milk bottles containing cornmeal-molasses medium. Approximately 50 adults were put in a bottle and allowed to reproduce at 15°C; when pupae appeared the bottles including the parents were put in an incubator at -2°C.

After eight days all D. pseudoobscura adults were dead. These bottles were moved to 15°C and no progeny from the original adults appeared; apparently the cold temperature had also killed eggs, larvae and pupae. D. pseudoobscura can be kept at 5°C for long periods of time with larvae, pupae and adults surviving.

After six months (184 days) the montana bottles (adults still alive) were removed from the incubator, adults were separated by sex and put in new bottles at 15°C. No flies had hatched from the original bottles after one month at 15°C and no living larvae were observed. The other life stages (eggs, larvae, and pupae) had been killed by the cold temperature. Additionally no larvae appeared in the bottles containing surviving females after one month at 15°C. The sexes were combined in a new bottle and larvae, and eventually adult progeny, appeared. The time at the cold temperature had despermed the "overwintering" females, but had not, at least grossly, affected their fertility.

The ability of montana adults to survive this temperature (-2°C) for an extended period of time (6 months) would seem to imply that adults can and probably do overwinter. The death of the pseudoobscura individuals does not demonstrate that they do not overwinter, but only that they may overwinter where temperatures do not get this cold. In many forest environments at or above 7000 ft. elevation both montana and pseudoobscura live in the same area and are attracted to the same banana baits. The greater cold temperature tolerance of montana adults should allow them to survive in the more exposed and colder areas of this environment.

Valente, V.L.S., C.C.R. Saavedra, A.M. de Araújo and N.B. Morales. Universidade Federal do Rio Grande do Sul, Porto Alegre, R.S., Brasil. Observations on the attraction of Drosophila species for different baits and chromosomal polymorphism in D. willistoni.

Present data were obtained in three days of collection from October to November 1978, in the locality of Estação Experimental Agronômica de Guaíba, Guaíba County, 40 km from Porto Alegre, the capital of the State of Rio Grande do Sul, Brasil. The studied place is a brushwood enclosed in a capon, with some watersheds. Five fermented banana baits were used besides natural available baits: fermented fruits fallen around the original plant, the native palm-tree Arecastrum romanzoffianum (Palmae), which fruit is commonly called "coquinho".