All the experiments were conducted in a room maintained at 24°C approximately under normal light conditions from 7 to 11 a.m.

Number of matings in female- and male-choice experiments involving marked and unmarked flies are presented in Table 1. It is evident from the results that marked and unmarked males as well as marked and unmarked females are equally successful in mating as there is no significant difference in the number of matings between marked and unmarked flies in all the comparisons ($P > 0.05$). Further, marking by both the methods (placing a small drop of nail polish on the scutellum and wing-clipping) produced identical results. Thus, it is concluded that marking the flies either by placing a drop of nail polish on scutellum or by wing-clipping has no effect on mating success in *D. ananassae*.

Table 1. Number of matings in female- and male-choice experiments involving marked and unmarked flies

	Female-choice experiment			Male-choice experiment		
	Mated males			Mated females		
Replicates	Unmarked	Marked	Total	Unmarked	Marked	Total
A. Nail polish marking on scutellum						
1	11	6	17	10	9	19
2	9	7	16	10	10	20
3	9	10	19	7	9	16
4	9	8	17	10	7	17
5	9	5	14	8	7	15
Total	47	36	83	45	42	87
χ^2 for 1:1 ratio	1.44	P> 0.05			.10	P > 0.05
B. Wing Clipping						
1	8	6	14	8	9	17
2	8	6	14	9	8	17
3	9	8	17	8	8	16
4	7	6	13	8	9	17
5	8	9	17	9	9	18
Total	40	35	75	42	43	85
χ^2 for 1:1 ratio	0.33	P > 0.05			0.01	P> 0.05

References: Arita, L.H., and K.Y. Kaneshiro 1979, Proc. Hawaiian Entomol. Soc. 13: 31-34; Bryant, E.H., A. Kence, and K.T. Kimball 1980, Genetics 96: 975-993; Ehrman, L., 1996, Anim. Behav. 14: 332-339; Ehrman, L., 1968, Genet. Res. 11: 135-140; Knoppien, P., 1984, Am. Nat. 123: 862-866; Markow, T.A., 1980, Behav. Genet. 10: 553-556; Markow, T.A., 1991, Evolution 45: 1525-1529; Singh, B.N., 1985, Nucleus 28: 169-176; Singh, B.N., 1996, Genetica 97: 321-329; Singh, B.N., and S. Chatterjee 1985, Can. J. Genet. Cytol. 27: 405-409; Singh, B.N., and S. Chatterjee 1989, Genet. Sel. Evol. 21: 447-455; Singh, B.N., and S. Sisodia 1997, Genetika 29: 41-48; Wu, C.-I., H. Hollocher, D.J. Begun, C.F. Aquadro, Y. Xu, and M.-L. Wu 1995, Proc. Natl. Acad. Sci. USA 92: 2519-2523; Zouros, E., and C.J. D'Entremont 1980, Evolution 34: 421-430.

de Melo Sene[1], Fabio, and Maura Helena Manfrin[2].
[1] Depto. Genética – FMRP-USP. Av. Bandeirantes 3900 CEP 14049-900. [2] Depto. Biologia – FFCLRP – USP. Av. Bandeirantes 3900 CEP 14040-901, Brasil. A chamber to record the courtship sound in *Drosophila*.

In the genus *Drosophia* the most conspicuous element of the male's courtship is the wing vibration which emits an acoustic stimulus. This stimulus is species specific being a character that has been used to identify species in the genus (Spieth, 1974), and there is variation among populations and subspecies (Miller *et al.*, 1975; Manfrin *et al.*, 1997). This makes the courtship sound an important character for behavioral, evolutionary and molecular studies. In order to obtain the sound pattern, it is necessary to record it with appropriate equipment, to observe courtship behavior, and to eliminate background noise such as female wing vibration and flies movement. We erected a mating chamber that can be easily handled and allows the observation of the fly couple. The chamber, presented in Figure 1, is composed by an acrylic block 3×3×1 cm. In the central part of its inferior base there is a concave chamber with a diameter of 1.5 cm and a height of 1.7 cm in its deepest part. This interior opening is sealed by a nylon nest allowing the sound produced during courtship to reach the microphone. In its superior face there is an inclined opening 0.6 cm wide which falls laterally in the enclosed space of the chamber. After the introduction of the flies through this opening in the chamber, we close it by plugging it with a cap. Because of its characteristics, this chamber is easily installed, fitting nicely on the exposed membrane of the microphone. In addition, it allows the flies movement in its interior and the observation of their behavior during courtship.

References: Manfrin *et al.*, 1997, Rev. Bras. Biol. 57:349-355; Miller, *et al.*, 1975, Evolution 29:531-544; Spieth, H.T., 1974, Ann. Rev. Entomol. 19:385-405.

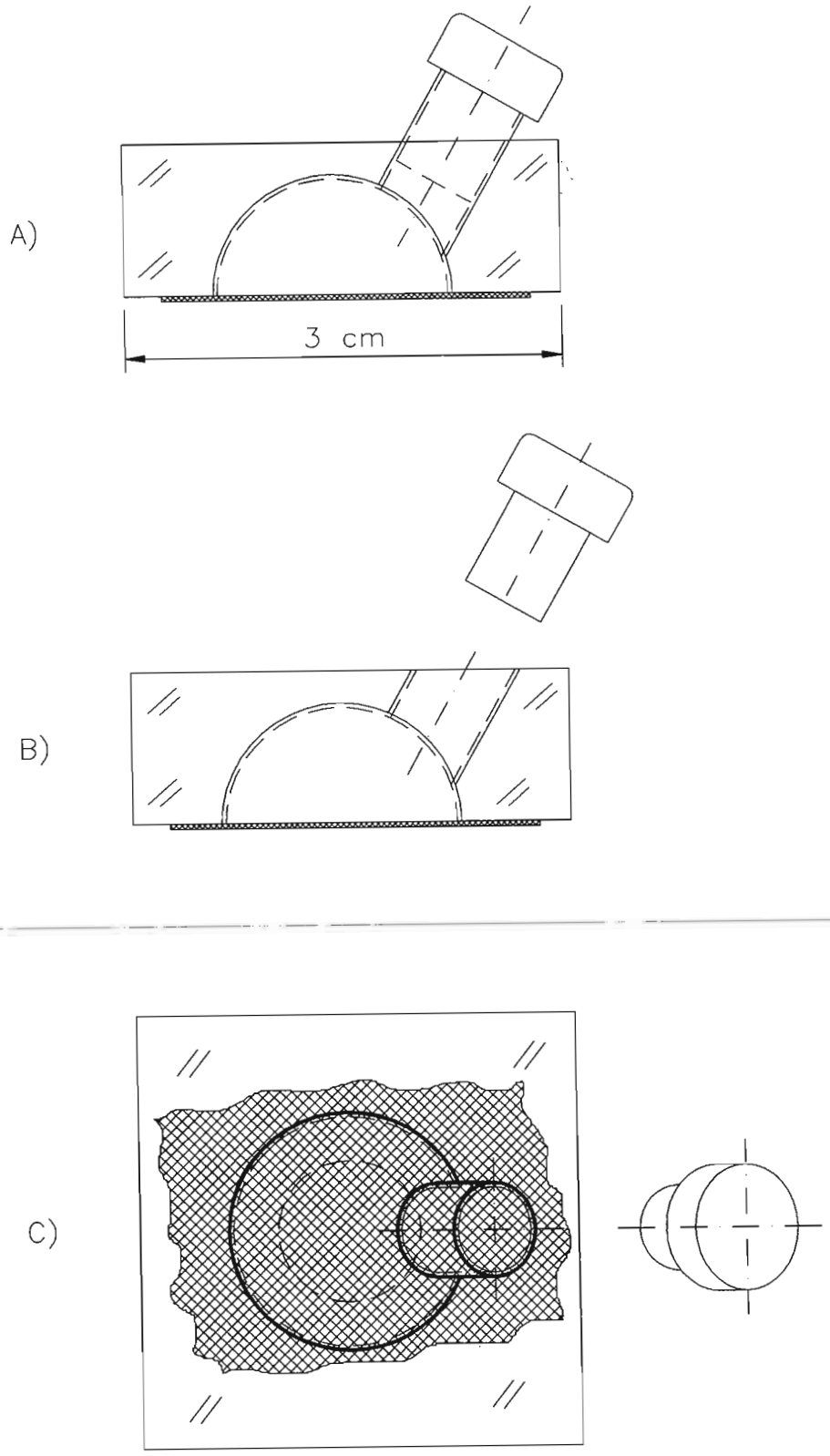

Figure 1. Chamber to record the courtship sound in *Drosophila*. A) Lateral view showing the concave chamber. B) Lateral view showing the opening in the chamber and the cap. C) Superior view showing the inferior base sealed by a nylon nest.