

Principal Pollinators of Dalechampia Species
with Location of Study Sites and Dates of Study

Supplementary Material for:

Armbruster, W.S. 1988. Multilevel comparative analysis
of the morphology, function, and evolution of Dalechampia blossoms. Ecology 69: 1746-1761

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Supplemental Table 1. Species names, population locations, dates of observations, and principal pollinators for Dalech
multilevel comparative analysis presented in Armbruster (1988). Principal pollinators are reported
more hours of observation. They are those insects that had the highest pollinator importance (PI)
where f_a is the frequency of contact with the anthers, f_s is the frequency of contact with stigma
rate ($\text{visits} \cdot \text{inflorescence}^{-1} \cdot \text{hr}^{-1}$). When two species had similar PI scores, both species are re

Species and Author	Location Population	Dates of Study	Number days o Observat
1. <u>Dalechamuia affinis</u> Mull. Arg.	1. Cacau Pirera, south bank of Rio Negro opposite Manaus, Amazonas, Brazil	10-25 Sept. 1978	6
2. <u>D. armbrusteri</u> Webster	2. Quadra "D" CEPLAC grounds, E of Itabuna, Bahia, Brazil	28 July - 5 Aug. 1984	8
3. <u>D. caneronioides</u> Baill.	3. 6 km SSE Brasilia, D.F., Brazil	20-29 Aug. 1984	6
	4. 10 km E Brasilia, D.F., Brazil	18 Aug. 1984	1
	5. 8 KM SSE Brasilia, D.F., Brazil	22-29 Aug. 1984	6
4. <u>D. cissifolia</u> Poepp. & Endl.	6. 47 km S Santo Domingo, Ecuador	11 July - 2 Aug. 1979	7
5. <u>D. canescens</u> H.B.K.	7. 5 km SE La Tenida , Tachira, Venezuela	20 Dec. 1985	1
	8. 2 km E Los Angeles del Tucuco, Zulia, Venezuela	26 Dec. 1985	1

6. <i>D. dioscoreifolia</i> Poepp. & Endl.	9. K 15 Pipeline Road, Parque Nacional Soberania, Panama	9-27 Jan. 1980	7	<u><i>Eulaema cingulata</i></u> <u><i>Eulaema meriana</i></u>
7. <i>D. ficifolia</i> Lam.	10. Reserva Pau Brazil, 15 k W Porto Seguro, Bahia, Brazil	4-27 July 1984	18	----
8. <i>D. heteromorpha</i> Pax & Hoffm.	11. 3 km E Golfito, Costa Rica	19-27 July 1977	5	<u><i>Hypanthidium panamense</i></u>
	12. K 13 Pipeline Rd, Parque Nacional Soberania, Panama	9-27 Jan. 1980	7	<u><i>Hypanthidium panamense</i></u>
	13. 5 km SW Palenque, Mexico	19-25 Feb. 1978	4	----
9. <i>D.</i> aff. <i>ilheotica</i> Wawra	14. Reserva Pau Brasil, 15 k W Porto Seguro Bahia, Brazil	4 July - 7 Aug. 1984	22	<u><i>Euglossa</i></u> sp.
10. <i>D. juruana</i> Ule	15. Yanamano, 60 km NE Iquitos, Peru	27 Aug. - 5 Sept. 1978	7	<u><i>Euglossa</i></u> sp. nov. RD 1154
11. <i>D.</i> sp. nov. aff. <i>juruana</i>	16. 14 km NE El Nula, Apure, Venezuela	25 Dec. 1985	1	----
12. <i>D. megacarpa</i> Armbruster	17. 86 km S El Dorado, Bolivar, Venezuela	8-11 Dec. 1985	3	<u><i>Euglossa</i></u> sp.
13. <i>D. magnistipulata</i> Webster & Armbruster	18. Estacion de Biologia Tropical "Los Tuxtlas," 25 km NE Catemaco, Veracruz, Mexico	10-13 Sept. 1975, 18 Aug. - 4 Sept. 1976, 28-29 Aug. 1977, 16-17 Feb. 1978, 21-23 Mar. 1978	27	<u><i>Eufriesea</i></u> aff. <u><i>surinamensis</i></u> <u><i>Euglossa</i></u> <u><i>viridissima</i></u>
14. <i>D.</i> cf. <i>parvifolia</i> Lam.	19. Endabash Guard Station, Lake Manyara National Park. Tanzania	20 July - 7 Aug. 1981	14	<u><i>Heriades</i></u> aff. <u><i>spiniscutis</i></u>
	20. Headquarters Area, Lake Manyara National Park, Tanzania	20 July - 7 Aug. 1981	15	<u><i>Heriades</i></u> aff. <u><i>spiniscutis</i></u>

15. <u>D. schippii</u> Standley	21. 2 km E Melinda Station, Belize	30 Nov. - 3 Dec. 1979	2	<u>Euglossa</u> <u>viridissima</u>
16. <u>D. schottii</u> Greenm.	21. 144 km E Esgarcega, Campeche, Mexico	19-29 Nov. 1979	2	<u>Trigona</u> sp. <u>Hypanthidium</u> <u>melanopterum</u>
17. <u>D. stipulacea</u> Mull. Arg.	23. 13 km S La Tendida , Tachira, Venezuela	17-18 Oct. 1978	2	<u>Eulaema</u> <u>cingulata</u>
18. <u>D. stipulacea</u> var. <u>minor</u>	24. 5 km E Campinas, Sao Paulo, Brazil	14 Aug. 1984	1'	<u>Euglossa</u> <u>melanotricha</u>
19. <u>D. spathulata</u> (Scheidw.) Baill.	24. Estacion de Biologia Tropical "Los Tuxtlas," 25 km NE Catemaco, Veracruz, Mexico	10-13 Sept. 1975, 18 Aug. - 4 Sept. 1976, 28-29 Aug. 1977, 16-17 Feb. 1978, 21-23 Mar. 1978	26	<u>Eulaema</u> <u>polychroma</u>
20. <u>D. tiliifolia</u> Lam.	26. 13 km SE San Isidro, Costa Rica	4 Jan. 1980	1	----
	27. K 15 Pipeline Road, Parque Nacional Soberania, Panama	9-27 Jan. 1980 5-9 Jan. 1986	10	<u>Eulaema</u> <u>cingulata</u>
	28. Never Delay, Belize	3-4 Feb. 1978	2	<u>Eulaema</u> <u>cingulata</u>
	29. 8 km SW Palenque, Chiapas, Mexico	19-25 Feb. 1978	5	----
	30. 5 km W Montealban, Carabobo, Venezuela	30 Nov. 1985	1	----
21. <u>D.</u> sp. aff. <u>triphvlla</u> Lam.	31. Brownsberg Nature Park, Suriname	17-29 July 1979, 12 Nov. 1985	10	<u>Hvpanthidium</u> sp.
22. <u>D. websteri</u> Armbruster	32. OTS Reserva "La Selva," Costa Rica	18-21 Dec. 1979, 4-6 Feb. 1980	7	<u>Euglossa</u> sp. <u>Hvnanthidium</u> sp. nov. " nigrum "

23. <u>D. scandens</u> L.	33. 2 km E San Jose de la Gracia, Oaxaca, Mexico	6 Sept. 1976, 28 June, 31 Aug. 1977	3	<u>Hypanthidium</u> <u>mexicanum</u>
	34. 10 km S Felipe Carillo Puerto, Quintana Roo, Mexico	27 Feb. 1978, 2 Mar. 1978, 27 Nov. 1979	3	<u>Euglossa</u> sp.
	35. 1 km W Liberia, Costa Rica	14 Aug. 1977, 15 Dec. 1979	2	<u>Euglossa</u> sp.
	36. Cacau Pirera, south bank of Rio Negro, opposite Manaus, Amazonas Brazil	10-25 Sept. 1978	6	<u>Hypanthidium</u> aff. <u>melantopternm</u>
	37. Near Madden Dam Spillway, "Canal Zone," Panama	9 Jan. 1980, 14 Dec. 1983	2	
	38. km 13 Pipeline Road, Parque Nacional Soberania, Panama	9-27 Jan. 1980	7	<u>Hypanthidium</u> <u>panamense</u>
	39. 45 km S Santo Domingo, Ecuador	11 Jul. - 2 Aug. 1978	11	<u>Eulaema</u> <u>cingulata</u>
	40. Tulum, Quintana Roo, Mexico	23-26 Nov. 1979	2	<u>Euglossa</u> <u>viridissima</u>
	41. UCV campus, Maracay , Aragua, Venezuela	27-28 Nov. 1985	2	<u>Hypanthidium</u> sp.
	42. Jardin Botanico , Caracas, D.F.	24 Nov. 1985	1	<u>Trigona</u> aff. <u>jaty</u>
	43. 40 km E El Palmar , Bolivar, Venezuela	2-5 Dec. 1985	3	<u>Hypanthidium</u> sp.

‘Additional observational data from Sazima and Sazima 1985

Literature Cited

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