

**FIRST REPORT OF *CHRYSONYA MEGACEPHALA*
(DIPTERA: CALLIPHORIDAE) IN NORTHWESTERN ARGENTINA**

MARÍA S. OLEA¹, MARÍA J. DANTUR JURI¹ AND NÉSTOR CENTENO²

¹"Dr. Abraham Willink" Higher Entomology Institute, Faculty of Natural Sciences and Miguel Lillo Institute, Tucumán National University, Miguel Lillo 205, San Miguel de Tucumán, T4000JFE, Tucumán, Argentina

²Studies and Research Center, Quilmes National University, Sáenz Peña 352, Bernal, B1876BXD, Buenos Aires, Argentina

The Calliphoridae family comprises around 150 genera and more than 1000 species distributed world wide (Hennig 1973; Pont 1980; Shewell 1987). *Chrysomya* Robineau-Desvoidy

(Diptera: Calliphoridae) is an especially important genus because its species are reported as invaders in South America (Guimaraes et al. 1978), and they are involved in the transmis-

TABLE 1. CALLIPHORIDAE SPECIES COLLECTED IN TUCUMÁN, NORTHWESTERN ARGENTINA, OCT 2009-JUL 2010.

Species	Collections	Date (Months)	Sites
<i>Phaenicia cluvia</i>	43	Oct	Jardín Botánico
	9	Nov	Jardín Botánico
	1	Dec	Jardín Botánico
	52	Mar	Jardín Botánico
	8	Nov	Nueva Esperanza
	7	Dec	Nueva Esperanza
	18	Jan	Nueva Esperanza
	6	Mar	Nueva Esperanza
	26	Apr	Jardín Botánico
<i>Phaenicia sericata</i>	4	Apr	Taficillo
	11	Oct	Jardín Botánico
	1	Nov	Jardín Botánico
	2	Dec	Jardín Botánico
	30	Jan	Jardín Botánico
<i>Phaenicia eximia</i>	1	Jan	Nueva Esperanza
	4	Oct	Jardín Botánico
	3	Oct	Taficillo
<i>Phaenicia peruviana</i>	1	Dec	Taficillo
	2	Dec	Taficillo
	3	Jan	Taficillo
	22	Mar	Taficillo
	3	Apr	Taficillo
<i>Sarconesiopsis magellanica</i>	2	Oct	Taficillo
<i>Chrysomya chloropyga</i>	2	Nov	Jardín Botánico
	1	Mar	Nueva Esperanza
<i>Chrysomya albiceps</i>	2	Nov	Nueva Esperanza
	1	Jan	Jardín Botánico
	1	Jan	Taficillo
	1	Mar	Nueva Esperanza
	4	Mar	Taficillo
<i>Chrysomya megacephala</i>	1	Nov	Taficillo
	3	Mar	Jardín Botánico
<i>Paralucilia pseudolycea</i>	2	Mar	Taficillo

sion of enteric bacteria, protozoa and helminths (Greenberg 1973). These species can act as dispersers of disease because their special feeding habits, which include human food products and human or animal faeces (Bohart & Gressit 1951; Zumpt 1965). In subtropical and tropical Africa and Asia the old world screwworm, *Chrysomya bezziana* Villeneuve is an obligate parasite of mammals (Sutherst et al. 1989).

García (1959) reported seven species of Calliphoridae in Argentina, and Mariluis (1982) reported new species for the country, increasing to 12 the species included in the Calliphorinae, Chrysomyinae, and Toxotarsinae subfamilies. Later, Mariluis & Schnack (2002) cited 25 species for the country and Mariluis & Mulieri (2003) recorded 13 species in the Tucuman province, Northwestern Argentina, including *Calliphora nigribasis* Macquart, *Calliphora vicina* Robineau-Desvoidy, *Phaenicia cluvia* (Walker), *Phaenicia peruviana* (Robineau-Desvoidy), *Phaenicia sericata* (Meigen), *Cochliomyia macellaria* (Fabricius), *Compsomyiops fulvicrura* (Robineau-Desvoidy), *Compsomyiops verena* (Walker), *Chrysomya albiceps* (Wiedemann), *Chrysomya chloropyga* (Wiedemann), *Paralucilia pseudolycea* (Mello), *Sarconesia chlorogaster* (Wiedemann), and *Sarconesiopsis magellanica* (Le Guillou) (Mariluis & Mulieri 2003). *Chrysomya megacephala* (Fabricius) was reported in Argentina for Misiones, Santa Fé, and Buenos Aires provinces (northeast and center of the country) (Mariluis & Mulieri 2003).

The present study updates the distribution of *Chrysomya megacephala* for Argentina. The new records extend westward by approximately 500 km the known geographic distribution of the species, being the first report of the species in the Northwestern region of the country.

We collected adult calliphorids with Ferreira traps (Guimarães et al. 1983) from 1 Oct 2009 through 30 Jul 2010 in different locations of the Tucuman province, i.e., Jardín Botánico Miguel Lillo ($26^{\circ}49.8'S$; $65^{\circ}13.3'W$) (Capital department), Nueva Esperanza ($26^{\circ}42.6'S$; $65^{\circ}15.9'W$), and El Taficillo ($26^{\circ}41.3'S$; $65^{\circ}16.8'W$) (Tafi Viejo department). The locations were placed according to relationship with anthropic activities, and Jardín Botánico represents the major degree of association with man, decreasing in Nueva Esperanza (with corn and citrus crops) and in El Taficillo (native rainforest). Traps were hung from tree branches at a height of 1.0 m. The collected specimens were taken to the laboratory and identified with the key of Mariluis & Schnack (2002). Voucher specimens were deposited in the collection of the Miguel Lillo Foundation Institute (Instituto-Fundación Miguel Lillo-IMLA).

The presence and abundance of *C. megacephala* adults and of the others calliphorid species is reported in Table 1.

SUMMARY

Chrysomya megacephala is reported by the first time to Tucumán province, Northwestern Argentina. Eight other calliphorid species were collected in the same locations. The voucher specimens were deposited in the collection of the Miguel Lillo Foundation Institute (Instituto-Fundación Miguel Lillo-IMLA).

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REFERENCES CITED

- BOHART, G. E., AND GRESSIT, J. L. 1951. Filth-inhabiting flies of Guam. Bernice P. Bishop Museum Bull. 204: 1-169.
- GARCIA, M. 1959. Diptera Calliphoridae. Prim. Jorn. Entomoep. Argent. 2: 577-578.
- GREENBERG, B. 1973. Flies and Disease. Vol II: Biology and Disease Transmission. New Jersey, Princeton University Press, 447 p.
- GUIMARÃES, J. H., PRADO, A. P., AND LINHARES, A. X. 1978. Three newly introduced blowfly species in Southern Brazil (Diptera, Calliphoridae). Rev. Brasil. Entomol. 22: 53-60.
- GUIMARÃES, J. H., PAPAVERO, N., AND PRADO, A. P. 1983. As miíases na região neotropical (identificação, biologia, bibliografia). Rev. Bras. Zool. 1: 239-416.
- HENNIG, W. 1973. 31. Diptera (Zweiflügler). Handbuch der Zoologie, Berlín, 4: 1-337.
- MARILUIS, J. C. 1982. Contribución al conocimiento de los Calliphoridae en la Argentina. Opera Lilloana 23: 1-59.
- MARILUIS, J. C., AND SCHNACK, J. A. 2002. Calliphoridae de la Argentina. Sistemática, ecología e importancia sanitaria (Diptera, Insecta), pp. 23-37 In O. S. Salomón [ed.], Actualizaciones en Arthropodología Sanitaria Argentina, Fundación Mundo Sano, Buenos Aires, Argentina.
- MARILUIS, J. C., AND MULIERI, P. R. 2003. The distribution of the Calliphoridae in Argentina (Diptera). Rev. Soc. Entomol. Argentinas 62: 85-97.
- PONT, A. C. 1980. Family Calliphoridae, pp. 779-800 In R. W. Crosskey [ed.], Catalogue of the Diptera of the Afrotropical Region, British Museum (Natural History), Londres.
- SHEWELL, G. E. 1987. Calliphoridae, pp. 1133-1145 In J. F. McAlpine, B. V. Peterson, G. E. Shewell, H. J. Teskey, J. R. Vockeroth, and D. M. Wood (eds.), Manual of Nearctic Diptera, Research Branch, Agriculture Canada, Ottawa.
- SUTHERST, R. W., SPRADBERRY, J. P., AND MAYWALD, G. F. 1989. The potential geographical distribution of the Old World screwworm fly, *Chrysomya bezziana*. Med. Vet. Entomol. 3: 273-280.
- ZUMPT, F. 1965. Myiasis in Man and Animals in the Old World. Butterworths, London: 267 pp.