

# Distribution Maps of Plant Pests

Compiled by CAB INTERNATIONAL in association with EPPO

Map No. 100

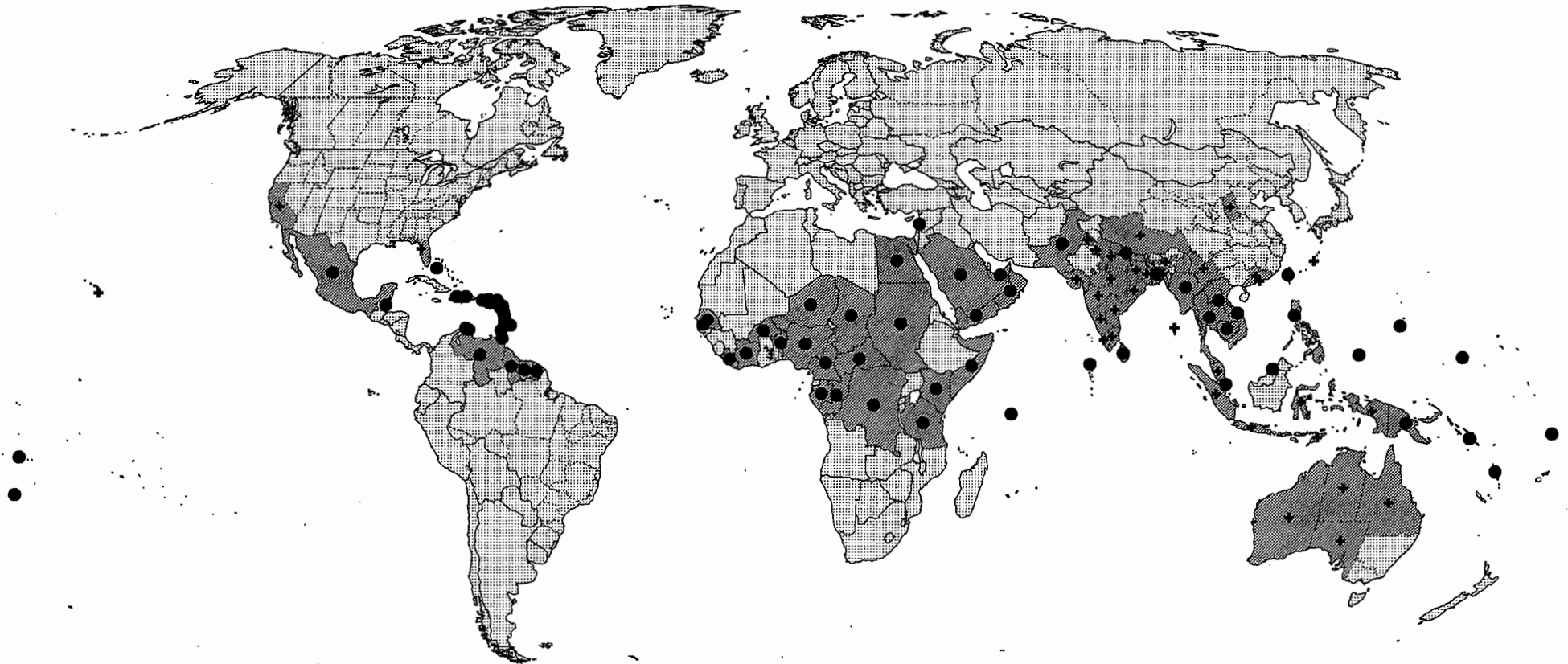
3rd revision

Issued June 2004

## *Maconellicoccus hirsutus* (Green)

Hemiptera: Coccoidea: Pseudococcidae

Hosts: Attacks cotton (*Gossypium* spp.), Hibiscus, *Boehmeria*, mulberry (*Morus* spp.), jute (*Corchorus* spp.), grapevine (*Vitis* spp.) and many other mostly woody plants



● Present: national record

● Present: subnational record

CABI/EPPO (2004) *Maconellicoccus hirsutus*. Distribution Maps of Plant Pests No. 100.  
CAB INTERNATIONAL, Wallingford, UK.

Note: Syn. Phenacoccus hirsutus Green.

Records are based on bibliographic data from the CAB ABSTRACTS database, voucher specimens in The Natural History Museum, London (NHM records) and plant quarantine information compiled by EPPO

X: Present, no details A: Present, widespread B: Present, restricted distribution C: Present, few occurrences (D): Absent, formerly present (E): Eradicated (F): Intercepted only

## ASIA

Bangladesh	-	X	Chowdhury, S. H.; Ullah, G. M. R. (1984) Bangladesh Journal of Zoology 12 (1), 43. [Patia, Chittagong.]	Delhi	X	Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			NHM (1940); (1969); (1980). [Pusa, Ranchi.]
			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
			NHM (1979); (1981); (1993). [Srimangal, Chittaging, Ishurdi.]	Gujarat	X	Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
Brunei Darussalam	-	X	McCrae, D. J. (1981) Insects of agricultural importance in Brunei. Brunei Press, Kuala Belai, Brunei, 22.			NHM (1984).
			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			X Muralidharan, C. M.; Badaya, S. N. (2000) Indian Journal of Agricultural Sciences 70 (10), 705-706. [First recorded in the Wagad cotton belt in 1997.]
			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.			Patel, I. S.; Dodia, D. A.; Patel, S. N. (1990) Indian Journal of Agricultural Sciences 60 (9), 645.
			NHM (1976). [Jerudong.]			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
Cambodia	-	X	Nickel, J. L. (1979) Annotated list of insects and mites associated with crops in Cambodia. CIAT, Cali, Colombia, 60.	Karnataka	X	NHM (1986). [Banashanthur, Banashanthur.]
			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			X Ahamed, C. A. A.; Chandrakala, M. V.; Maribashetty, V. G. (1999) Entomon 24 (3), 265-273.
			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.			Baikai, R. A.; Bagali, A. N. (2000) Agricultural Science Digest 20 (1), 62-63.
China	-	B				Mani, M.; Thontadarya, T. S. (1987) Current Science, India 56 (22), 1192.
Guangdong		X	Tang, F. D. (1992) The Pseudococcidae of China. Chinese Agricultural Science Technology Press, Beijing, China, 501-502.	Kerala	X	Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
			Wu, C. F. (1935) Catalogus Insecta Sinica 2, 177. [Guangzhou.]			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
Hong Kong		X	Hill, D. S.; Hore, P.; Thornton, I. W. B. (1982) Insects of Hong Kong. University Press, Hong Kong, China.			NHM (1940). [Malabar.]
			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.	Madhya Pradesh	X	Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
			NHM (1970); (1979); (1992). [Ta Kwu Ling, Ma Po Marsh.]			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
Macau		X	EPPO (2004) PQR database (version 4.3).			NHM (1977). [Jabalpur.]
Shanxi		X	Tang, F. D. (1992) The Pseudococcidae of China. Chinese Agricultural Science Technology Press, Beijing, China, 501-502.	Maharashtra	X	Mani, M. (1994) Progressive Horticulture 26 (1/2), 106-108.
Xizhang		X	Wang, T. C. (1981) Insects of Xizhang 1, 283-294.			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
Yunnan		X	Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
India	-	A				NHM (1969); (1991); (1992). [Nagpur, Akola, Rahuri.]
Andaman and Nicobar Islands		X	Varshney, R. K. (1982) Records of the Zoological Survey of India 80 (1/2), 107-109.	Orissa	X	Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
			NHM.			NHM (1980); (1982); (1983). [Bhubaneswar, Mayurbhanj, Dhenkanal.]
Andhra Pradesh		X	Murthy, G. R.; Babu, T. R. (1996) Journal of Research ANGRAU 24 (1/2), 87-91.	Punjab	X	Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
			Reddy, A. R.; Lakshminarayana, K. (1989) Indian Journal of Entomology 49 (3), 449-450. [Hyderabad.]			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.			NHM (1976). [Ludhiana.]
			NHM (1982). [Hyderabad.]	Tamil Nadu	X	Baskaran, R. K. M.; Lakshmi, L. G.; Uthamasamy, S. (1999) Pest Management in Horticultural Ecosystems 5 (1), 28-31.
Assam		X	Dutt, N. (1964) Indian Farming 14 (2), 9-10.			Gangwar, S. K.; Thangavelu, K. (1991) Indian Phytopathology 44 (4), 545-549.
			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
Bihar		X	Singh, M. P.; Ghosh, S. N. (1970) Indian Journal of Science and Industry, A 4 (2), 99-105.			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			

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X: Present, no details A: Present, widespread B: Present, restricted distribution C: Present, few occurrences (D): Absent, formerly present (E): Eradicated (F): Intercepted only

		NHM (1940); (1991). [Chennai, Annamalai.]			NHM (1980); (1990). [Kuala Lumpur, Takam.]
Tripura	X	Ganguli, R. N.; Ghosh, M. R. (1964) Indian Journal of Entomology 26 (3), 358-359.	Maldives	-	X Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
		Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
		Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.			NHM (1990); (1993). [Nakatchajushi, Baros, Kaashidos, Hithadhoo.]
Uttar Pradesh	X	Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.	Myanmar	-	X Hanson, H. C. (1963) Diseases and pests of economic plants of Burma, American Institute of Crop Ecology, Washington DC, USA, 38.
		Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.	Nepal	-	X Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
		NHM (1985). [Lucknow.]			NHM (1985).
West Bengal	X	Kumar, M. V. S.; Chakraborty, N. (1997) Journal of Entomological Research 21 (4), 329-334.	Oman	-	X Elwan, A. A. (2000) Egyptian Journal of Agricultural Research 78 (2), 653-664.
		Rao, A. A.; Teotia, R. S.; Chauhan, S. S.; Chakraborty, S.; Rao, G. S. (1993) Indian Journal of Sericulture 32 (1), 111-113.			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
		Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			NHM (1976). [Batinah Al Khabourah.]
		Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.	Pakistan	-	X Singh, M. P.; Ghosh, S. N. (1970) Indian Journal of Science and Industry, A 4 (2), 99-105.
		NHM (1970); (1976). [Medinipur, Bongoon.]			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
Indonesia	-	A	Philippines	-	X Li, I. L.; Calilung, V. J. (1994) The Philippine Entomologist 9, 385-398.
Irian Jaya	X	Williams D. J.; Watson, G. W. (1988) The scale insects of the tropical South Pacific region. Part 2. The mealybugs (Pseudococcidae). CAB International, Wallingford, UK, 102.			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
		Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
Java	X	Ankersmit, G. W. (1961) Contributions, General Agricultural Research Station Bogor No. 126, 19 pp.	Saudi Arabia	-	NHM (1940).
		Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.			X Mabile-Ferrero, D. (1984) Fauna of Saudi Arabia 6, 225. [Al-Kharj.]
		NHM (1979); (1997). [Jakarta, Bogor.]			Talhouk, A. S. (1993) Journal of Applied Entomology 116 (1), 105-111.
Nusa Tenggara	X	Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
		Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408. [Bali, Lombok.]	Singapore	-	NHM (1988); (1989). [Jidday, Riyadh.]
Sulawesi	X	Kalshoven, L. G. E. (1950) The pests of cultivated plants in Indonesia Part 1, p. 346. W. van Hove, The Hague, Netherlands.			X Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
		Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
Sumatra	X	Kalshoven, L. G. E. (1950) The pests of cultivated plants in Indonesia Part 1, p. 346. W. van Hove, The Hague, Netherlands.	Sri Lanka	-	NHM (1989). [Zoological Gardens.]
		Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			X Ben-Dov, Y. (1994) A Systematic Catalogue of Mealybugs of the World. Intercept Limited, Andover, UK, 217-219.
Japan	-	B			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
Ryukyu Archipelago	X	Kinjo, M.; Nakasone, F.; Higa, Y.; Nagamine, M.; Kawai, S.; Kondo, T. (1966) Proceedings of the Association for Plant Protection of Kyushu 42, 125-127.	Taiwan	-	NHM (1900). [Peradeniya.]
Laos	-	X Dean, G. J. (1996) PANS 24 (2), 135.			X Schmutter, H. (1969) Pests of crops in northeast and central Africa with particular reference to the Sudan. Gustav Fischer Verlag, Stuttgart, Germany, 101.
		Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			Tao, C. (1999) List of Coccidea (Homoptera) of China. Taiwan Agricultural Research Institute, Taichung, Taiwan.
		Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.	Thailand	-	Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
		NHM (1975).			X Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
Lebanon	-	X Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
Malaysia	-	X	Un'ited Arab Emirates	-	NHM (1982). [Bangkok.]
Peninsular Malaysia	X	Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.			X Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.
		Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.	Vietnam	-	NHM (1986). [Al Ain.]
		Yunus, A.; Ho, T. H. (1980) List of economic pests, host plants, parasites and predators in West Malaysia (1920-1976). Bulletin, Ministry of Agriculture, Malaysia No. 153, 52. [As Phenacoccus glomeratus.]	Yemen	-	X Williams, D. J. (2004) Mealybugs of Southern Asia. Southdene SDN. BHD, Kuala Lumpur, Malaysia, 405-408.
					X Ben-Dov, Y. (1994) A Systematic Catalogue of Mealybugs of the World. Intercept Limited, Andover, UK, 217-219.

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Marotta, S.; Harten, A. van; Mahyoub, M. A. (2001) Bollettino di Zoologia Agraria e di Bachicoltura 33 (3), 233-238.

Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.

NHM (1971). [Al Hudaydah.]

Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357. [Mlingano, Ilonga.]

NHM (1949); (1989). [Zanzibar, Simba Uranga.]

## AFRICA

- Benin - B Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357. NHM (1990). [Parakou.]
- Burkina Faso - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357. NHM (1973). [Ouagadougou.]
- Cameroon - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357.
- Central African Republic - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357.
- Chad - X Ben-Dov, Y. (1994) A Systematic Catalogue of Mealybugs of the World. Intercept Limited, Andover, UK, 217-219. NHM (1957). [Fort Lamy.]
- Congo - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357. NHM (1987). [Loudima region.]
- Congo Democratic Republic - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357. NHM (1973); (1984). [Kinshasa, Luozi.]
- Cote d'Ivoire - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357.
- Egypt - X Schmutter, H. (1969) Pests of crops in northeast and central Africa with particular reference to the Sudan. Gustav Fischer Verlag, Stuttgart, Germany, 101. [Nile Valley.] Williams, D. J. (1986) Bulletin of Entomological Research 76 (2), 351-357. NHM (1923); (1929). [Zagazar, Alexandria.]
- Gabon - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357.
- Gambia - X NHM (1992).
- Kenya - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357.
- Liberia - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357.
- Niger - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357. NHM (1973). [Niamey.]
- Nigeria - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357. NHM (1978); (1985). [Lagos, Calabar.]
- Senegal - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357. NHM (1982). [Dakar.]
- Seychelles - X Ben-Dov, Y. (1994) A Systematic Catalogue of Mealybugs of the World. Intercept Limited, Andover, UK, 217-219. Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628. NHM (1976); (1978). [Mahe, Aldabra.]
- Somalia - X Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357.
- Sudan - X Schmutter, H. (1969) Pests of crops in northeast and central Africa with particular reference to the Sudan. Gustav Fischer Verlag, Stuttgart, Germany, 101. Williams, D. J. (1986) Bulletin of Entomological Research 76, 351-357. [Khartoum, Shambat.] NHM (1961). [Lujulo.]
- Tanzania - X Le Pelley, R. H. (1959) Agricultural Insects of East Africa. East African High Commission, Nairobi, Kenya, 42. [Zanzibar.]

## NORTH AMERICA

- Mexico - C EPPO (2004) PQR database (version 4.3). [Mexicali, Baja California and San Luis Rio Colorado, Sonora. Under eradication.] Miller, D. R. (1999) Insecta Mundi 13 (3/4), 189-203.
- USA - B California - B Kairo, M. T. K.; Pollard, G. V.; Peterkin, D. D.; Lopez, V. F. (2000) Integrated Pest Management Reviews 5 (4), 241-254. Miller, D. R. (1999) Insecta Mundi 13 (3/4), 189-203. Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in Aug. 1999.] Florida - B Garofalo, J. (2002) Fact sheet No. 70. Miami-Dade County Cooperative Extension Service and the University of Florida. [Southern Florida. Eradication action being taken.] Hoy, M. A.; Hamon, A.; Ru Nguyen (2002) Featured Creatures. <http://www.ifas.ufl.edu/>. [Broward and Dade Counties.] Hawaii - X Ben-Dov, Y. (1994) A Systematic Catalogue of Mealybugs of the World. Intercept Limited, Andover, UK, 217-219. Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628.

## CENTRAL AMERICA &amp; CARIBBEAN

- Anguilla - X Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in Feb. 1997.] Watson, G. W.; Chandler, L. R. (2000) Identification of mealybugs important in the Caribbean region. Commonwealth Science Council and CAB International, Wallingford, UK.
- Antigua and Barbuda - X EPPO (2004) PQR database (version 4.3).
- Aruba - X EPPO (2004) PQR database (version 4.3).
- Bahamas - X Kairo, M. T. K.; Pollard, G. V.; Peterkin, D. D.; Lopez, V. F. (2000) Integrated Pest Management Reviews 5 (4), 241-254. Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in Dec. 2000.] NHM (2001). [New Providence.]
- Barbados - X Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in Aug. 2000.]
- Belize - X Kairo, M. T. K.; Pollard, G. V.; Peterkin, D. D.; Lopez, V. F. (2000) Integrated Pest Management Reviews 5 (4), 241-254.
- British Virgin Islands - X Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in May 1997.] NHM (1997). [Tortola, Virgin Gorda.]
- Dominica - X EPPO (2004) PQR database (version 4.3).
- Dominican Republic - X Meyerdirk, D. E.; De Chi, L. W. (2004) Proceedings of the Caribbean Food Crops Society (2003) 39 (1), 47-55. [First record.]
- Grenada - B Jones, J. E. (1985) Monthly Bulletin - Department of Agriculture, Fisheries & Parks, Bermuda 66 (11), 108. [First recorded in November 1994.] Kairo, M. T. K.; Pollard, G. V.; Peterkin, D. D.; Lopez, V. F. (2000) Integrated Pest Management Reviews 5 (4), 241-254. Matile-Ferrero, D.; Etienne, J. (1996) Revue Francaise d'Entomologie 18 (1), 38. Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Including Carriacou.] Sagarra, L. A.; Peterkin, D. D. (1999) Phytoprotection 80 (2), 103-113. NHM (1994). [Frequente.]

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Guadeloupe	-	X	Etienne, J.; Matile-Ferrero, D.; Leblanc, F.; Marival, D. (1998) Bulletin de la Societe Entomologique de France 103 (2), 173-174. [First record.] Matile-Ferrero, D.; Etienne, J. (1996) Revue Francaise d'Entomologie 18 (1), 38. [First record in St Martin.] Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in Apr. 1998.]	Venezuela	-	X	Cermeli, M.; Morales Valles, P.; Godoy, F.; Romero, R.; Cardenas, O. (2002) Entomotropica 17 (1), 103-105. [First recorded on Margarita Island, now spread to mainland.] Kairó, M. T. K.; Pollard, G. V.; Peterkin, D. D.; Lopez, V. F. (2000) Integrated Pest Management Reviews 5 (4), 241-254.
Haiti	-	X	Meyerdirk, D. E.; De Chi, L. W. (2004) Proceedings of the Caribbean Food Crops Society (2003) 39 (1), 47-55. [First record.]	<b>OCEANIA</b>			
Martinique	-	X	Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in Mar. 1999.]	Australia	-	X	Gullan, P. J. (2000) Australian Journal of Entomology 39 (3), 160-166.
Montserrat	-	X	Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in Jan. 1998.] NHM (1997). [St Peter's.]	Northern Territory	-	X	Williams D. J. (1985) Australian mealybugs, pp. 194-196. British Museum (Natural History), London, UK. Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628. NHM (1980); (1966). [Darwin, Boorooloola.]
Netherlands Antilles	-	X	Pollard, G. (1997) CARAPHIN News No. 15, 11. [Curacao.] Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in Sep. 1996 (St Maarten), May 1997 (St Eustatius), Jun. 1997 (Curacao).] NHM (1996). [St Maarten.] NHM (2002). [Curacao.]	Queensland	-	X	Williams D. J. (1985) Australian mealybugs, pp. 194-196. British Museum (Natural History), London, UK. Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628. NHM (1992). [Brisbane.]
Puerto Rico	-	X	Michaud, J. P.; Evans, G. A. (2000) Florida Entomologist 83 (1), 97-101. [First recorded in 1998.] Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in May 1997 (Vieques), Dec. 1997 (Culebra), Apr. 1998 (mainland).]	South Australia	-	X	Brookes, H. M. (1964) Transactions of the Royal Society of South Australia 88, 15-20.
St Kitts-Nevis	-	X	Matile-Ferrero, D.; Etienne, J. (1996) Revue Francaise d'Entomologie 18 (1), 38. Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in Nov. 1995 (St Kitts), Dec. 1995 (Nevis).] NHM (1995); (1998). [Basseterre, St Kitts, Nevis.]	Western Australia	-	X	Williams D. J. (1985) Australian mealybugs, pp. 194-196. British Museum (Natural History), London, UK. Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628. NHM (1960). [Kimberley.]
St Lucia	-	X	Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in Oct. 1998.] NHM (1996). [Castries.]	Fed. States of Micronesia	-	X	Nafus, D. M. (1997) Insect Survey of the Federated States of Micronesia, and Palau. Technical Paper No. 210. South Pacific Commission, Noumea, New Caledonia.
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United States Virgin Islands	-	X	Pollard, G. V. (2000) FAO Circular letter No. 1/00. CPPC, Barbados. [Reported in May 1997 (St Thomas, St John), Jun. 1997 (St Croix).] NHM (1997). [St Thomas.]	Papua New Guinea	-	A	Bourke, T. V.; Fenner, T. L.; Stibick, J. N. L.; Baker, G. L.; Hassan, E.; O'Sullivan, D. F.; Li, C. S. (1973) Insect pest survey for the year ending 30th June, 1969. xii + 57 pp. Williams D. J.; Watson, G. W. (1988) The scale insects of the tropical South Pacific region. Part 2. The mealybugs (Pseudococcidae). CAB International, Wallingford, UK, 102. Williams, D. J. (1996) Bulletin of Entomological Research 86 (5), 617-628. NHM (1957); (1962); (1979); (1997). [Central and North Districts, Port Moresby, Konedobu.]
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French Guiana	-	X	Matile-Ferrero, D.; Etienne, J.; Tiego, G. (2000) Bulletin de la Societe Entomologique de France 105 (5), 485-486. [First record.]	Solomon Islands	-	X	Maddison, P. A. (1993) Insect Survey of the Solomon Islands - 1986. Landcare Ltd., New Zealand.
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				Vanuatu	-	X	NHM (2003). [Maleluka.]

Records are based on bibliographic data from the CAB ABSTRACTS database, voucher specimens in The Natural History Museum, London (NHM records) and plant quarantine information compiled by EPPO

X: Present, no details A: Present, widespread B: Present, restricted distribution C: Present, few occurrences (D): Absent, formerly present (E): Eradicated (F): Intercepted only

A record for Algeria in Ben-Dov (1994) was based on a misinterpretation of Balachowsky (1926), which mentions the threat to Algeria posed by *M. hirsutus*. This record was incorrectly given in the previous edition of this map. The record for Guatemala in Watson and Chandler (2000) was an error; no evidence has been seen to indicate its presence there (Watson, 2001). The first description of the species, as *Phenacoccus hirsutus* (Green, 1908) included material from Tasmania, Australia, but this is now regarded as a separate species, *M. tasmaniae* (Williams, 1985).

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