

Table 3.2 Natural sporozoite infections of *Anopheles* mosquitoes from the main islands in Indonesia^a

Species	Year of samples	Western Indonesia			Eastern Indonesia			
		Sumatra	Java/Bali	Kalimantan	Sulawesi	Maluku	Lesser Sundas	Papua
<i>An. aconitus</i>	1918–2007	0/15	15/17,463 (0.08)	–	–	–	0/76	–
<i>An. albotaeniatus</i>	1918	–	0/6	–	–	–	–	–
<i>An. annularis</i>	1934–2007	0/107	0/283	–	–	–	0/99	–
<i>An. balabacensis</i>	1982–2005	–	4/138 (2.9)	60/1449 (4.14)	–	–	47/761 (6.18)	–
<i>An. bancroftii</i>	1954–2002	–	–	–	–	–	–	2/983 (0.2)
<i>An. barbirostris</i>	1918–2007	0/119	0/3263	–	82/6063 (1.35)	–	9/123 (7.32)	–
<i>An. barbumbrosus</i>	1940–2002	–	–	–	1/22 (4.55)	–	–	–
<i>An. crawfordi</i>	1994–2002	0/773	–	–	–	–	–	–
<i>An. farauti</i>	1953–1979	–	–	–	–	–	–	12/1199 (1.0)
<i>An. flavirostris</i>	1941–2007	–	1/1452 (0.07)	–	1/60 (1.67)	–	0/663	–
<i>An. indefinitus</i>	1982–2007	–	0/133	–	–	–	0/40	–
<i>An. karwari</i>	1953–1955	–	–	–	–	–	–	6/685 (0.88)
<i>An. kochi</i>	1934–2007	1/1025 (0.1)	0/1864	–	0/1	0/75	0/2	–

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Table 3.2 Natural sporozoite infections of *Anopheles* mosquitoes from the main islands in Indonesia—cont'd

Species	Year of samples	Western Indonesia		Eastern Indonesia				
		Sumatra	Java/Bali	Kalimantan	Sulawesi	Maluku	Lesser Sundas	Papua
<i>An. koliensis</i>	1947–1994	–	–	–	–	–	–	24/2616 (0.92)
<i>An. leucosphyrus</i>	1938–1986	–	–	1/85 (1.18)	0/4	–	–	–
<i>An. longirostris</i>	1953–1964	–	–	–	–	–	–	0/7
<i>An. maculatus</i>	1941–2007	0/13	6/3270 (0.18)	–	–	–	0/213	–
<i>An. nigerrimus</i>	1939–1995	3/555 (0.54)	0/1343	–	8/1545 (0.52)	–	–	–
<i>An. parangensis</i>	1939–2002	–	–	–	6/688 (0.87)	–	–	–
<i>An. peditaeniatus</i>	1934–2007	0/258	0/336	–	–	–	–	–
<i>An. punctulatus</i>	1953–1992	–	–	–	–	–	–	117/10,501 (1.11)
<i>An. sinensis</i>	1919–1998	1/1660 (0.06)	0/1072	–	0/1	–	–	–
<i>An. subpictus</i>	1918–2007	0/678	52/69,702 (0.07)	–	19/12,996 (0.15)	0/219	89/5189 (1.72)	–
<i>An. sundaicus</i>	1918–2007	6/1480 (0.41)	128/51,701 (0.25)	–	16/1635 (0.98)	–	19/1808 (1.05)	–

<i>An. tessellatus</i>	1934–2007	10/455 (2.2)	0/283	–	0/1	0/39	0/60	–
<i>An. umbrosus</i>	1918–1991	0/23	0/2	–	–	–	–	–
<i>An. vagus</i>	1934–2007	0/92	7/6562 (0.11)	–	–	0/104	0/86	–

^aSporozoite infections based on dissections only are presumed to be of human origin, but in some instances (e.g. forest/forest-fringe dwelling vectors) might have been derived from non-human primate or rodent hosts.

The bold values emphasize the finding of natural sporozoite infections in mosquitoes which confirms the role of those species as malaria vectors.

The database of natural sporozoite infections of *Anopheles* mosquitoes to *Plasmodium* spp. infections in Indonesia was acquired from the following references:

An. aconitus: Bangs and Rusmiarto (2007), Barodji et al. (2007), Boesri et al. (2004), Boesri and Boewono (2006), Boewono and Ristiyanto (2005), Doorenbos (1931), Hoedjo (1995), Kirnowardoyo et al. (1985), Lestari et al. (2007), Lien et al. (1975), Mangkoewinoto (1919), Marwoto et al. (1992a), Nalim et al. (2000), Soesilo (1935), Stoops et al. (2009b) and Sundararaman et al. (1957).

An. albotaeniatus: Mangkoewinoto (1919).

An. annularis: Barodji et al. (2007), Boesri (1994b), Boesri and Boewono (2006), Hoedjo (1992, 1995), Kirnowardoyo et al. (1985), Lien et al. (1975), Maekawa et al. (2009b), Soesilo (1935), Stoops et al. (2009b) and Venhuis (1941).

An. balabacensis: Adrial et al. (2000), Boesri and Boewono (2006), Boewono and Nalim (1996), Boewono and Ristiyanto (2005), Harbach et al. (1987), Lestari et al. (2007), Maekawa et al. (2009b), Pranoto and Prasetyo (1990), White (1983) and Wigati et al. (2006).

An. bancroftii: Metselaar (1956), Nurdin et al. (2003) and Van den Assem and Bonne-Wepster (1964).

An. barbirostris: Barodji et al. (2007), Boesri (1994b), Boesri and Boewono (2006), Boewono and Nalim (1996), Boewono et al. (1997a), Boewono and Ristiyanto (2005), Collins et al. (1979), Kirnowardoyo et al. (1985), Lestari et al. (2007), Lien et al. (1975), Machsoes (1939), Maekawa et al. (2009b), Mangkoewinoto (1919), Marwoto et al. (2002), Marwoto et al. (1992a), Marwoto et al. (1996), Nalim et al. (2000), Nurdin et al. (2003), Soesilo (1935), Stoops et al. (2009b), Sukowati et al. (2001), Sukowati et al. (2002), Van Hell (1952), Venhuis (1941) and Widjaya et al. (2006).

An. barbumbrosus: Nurdin et al. (2003), Sekartuti et al. (1995b) and Van Hell (1952).

An. crawfordi: Boewono and Nalim (1996), Boewono et al. (1997a), Fryauff et al. (2002) and Nurdin et al. (2003).

An. jarauti: Bangs and Rusmiarto (2007), Lee et al. (1980), Metselaar (1956) and Van den Assem and Bonne-Wepster (1964).

An. flavivostris: Barodji et al. (1998/1999), Boewono and Ristiyanto (2005), Lestari et al. (2007), Maekawa et al. (2009b), Stoops et al. (2009b), Sundararaman et al. (1957), Van Hell (1952), Venhuis (1941) and Wigati et al. (2006).

An. indefinitus: Boewono and Nalim (1996), Kirnowardoyo et al. (1985), Maekawa et al. (2009b) and Stoops et al. (2009b).

An. kanviri: Metselaar (1956) and Van den Assem and Bonne-Wepster (1964).

An. kochi: Bangs and Rusmiarto (2007), Barodji et al. (2007), Boesri and Boewono (2006), Boewono and Nalim (1996), Boewono et al. (1997a), Boewono and Ristiyanto (2005), Fryauff et al. (2002), Hoedjo (1992), Kirnowardoyo et al. (1985), Lestari et al. (2007), Lien et al. (1975), Nalim et al. (2000), Sekartuti et al. (1995b), Soekirno et al. (1997), Soesilo (1935), Stoops et al. (2009b), Sundararaman et al. (1957) and Venhuis (1941).

An. kolensis: Bangs et al. (1996), Church et al. (1995), Lee et al. (1980), Metselaar (1956), Pribadi et al. (1998) and Van den Assem and Bonne-Wepster (1964).

An. leucosphyrus: Harbach et al. (1987), Machsoes (1939) and Van Hell (1952).

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An. longirostris: Metselaar (1956) and Van den Assem and Bonne-Wepster (1964).

An. maculatus: Barodji et al. (2007), Boesri and Boewono (2006), Boewono and Ristiyanto (2005), Kimnowardoyo et al. (1985), Kimnowardoyo et al. (1991), Lestari et al. (2007), Lien et al. (1975), Maekawa et al. (2009b), Marwoto et al. (1992a), Stoops et al. (2009b), Sundararaman et al. (1957), Venhuis (1941) and Wigati et al. (2006).

An. nigerrimus: Bangs and Rusmiarto (2007), Boesri (1994b), Boewono and Nalim (1996), Boewono et al. (1997a), Kimnowardoyo et al. (1991), Nalim et al. (2000), Overbeek (1940), Sundararaman et al. (1957), Van Hell (1952) and Venhuis (1941).

An. parangensis: Machsoes (1939), Marwoto et al. (2002), Marwoto et al. (1996) and Nurdin et al. (2003).

An. peditaeniatus: Boewono and Nalim (1996), Boewono et al. (1997a), Lien et al. (1975), Soesilo (1935) and Stoops et al. (2009b).

An. punctulatus: Bangs et al. (1996), Church et al. (1995), Lee et al. (1980), Metselaar (1956), Pribadi et al. (1998) and Van den Assem and Bonne-Wepster (1964).

An. sinensis: Boewono and Nalim (1996), Boewono et al. (1997a), Fryauff et al. (2002), Lien et al. (1975), Mangkoewinoto (1919), Soesilo (1935) and Sundararaman et al. (1957).

An. subpictus: Barodji et al. (1999/2000), Boesri and Boewono (2006), Collins et al. (1979), Dasuki and Supratman (2005), Gundelfinger et al. (1975), Hoedjo (1992, 1995), Issaris and Sundararaman (1954), Machsoes (1939), Maekawa et al. (2009b), Mangkoewinoto (1919), Marwoto et al. (2002), Marwoto et al. (1992a), Marwoto et al. (1996), Nalim et al. (2000), Nurdin et al. (2003), Soekimo et al. (1997), Soesilo (1928, 1935), Sukowati et al. (2001), Sundararaman et al. (1957) and Van Hell (1952).

An. sundaicus: Boewono and Nalim (1996), Boewono et al. (1997a), Collins et al. (1979), Fryauff et al. (2002), Issaris and Sundararaman (1954), Kimnowardoyo et al. (1991), Lien et al. (1975), Maekawa et al. (2009b), Mangkoewinoto (1919), Marwoto et al. (1992a), Nalim et al. (2000), Soesilo (1928), Stoops et al. (2009b), Sundararaman et al. (1957) and Van Hell (1952).

An. tessellatus: Bangs and Rusmiarto (2007), Boesri and Boewono (2006), Boewono and Nalim (1996), Boewono et al. (1997a), Fryauff et al. (2002), Kimnowardoyo et al. (1985), Machsoes (1939), Maekawa et al. (2009b), Nurdin et al. (2003), Soekimo et al. (1997), Soesilo (1935), Stoops et al. (2009b), Sundararaman et al. (1957) and Venhuis (1941).

An. umbrosus: Kimnowardoyo et al. (1991) and Mangkoewinoto (1919).

An. vagus: Barodji et al. (2007), Boesri (1994b), Boesri and Boewono (2006), Boewono and Nalim (1996), Boewono and Ristiyanto (2005), Hoedjo (1992, 1995), Kimnowardoyo et al. (1985), Lestari et al. (2007), Lien et al. (1975), Maekawa et al. (2009b), Marwoto et al. (1992a), Nurdin et al. (2003), Soekimo et al. (1997), Soesilo (1935), Stoops et al. (2009b), Venhuis (1941), Wiganti et al. (2010) and Wigati et al. (2006).