

**Table 3.4** The typical larval habitats of *Anopheles* malaria vectors in Indonesia

Species or species complex	Light intensity		Water salinity		Water turbidity		Water movement		Habitat type	
	Sunlit	Shaded	Brackish	Fresh	Clear	Turbid	Stagnant	Flowing	Natural	Man-made
<i>An. aconitus</i>	•	•		•	•		•	•	Marshes, lakes, streams, river beds.	Rice fields, fish ponds, irrigation ditches.
<i>An. balabacensis</i>		•		•	•		•		Ground depressions, stream-side rock pools, pools under shrubs or low trees, river banks, seepage.	Puddles, animal wallows, hoof prints, tyre tracks.
<i>An. bancroftii</i>		•		•	•			•	Marshes, pools associated with slow streams, creeks and rivers, ground pools.	Heavily shaded irrigation ditches.
<i>An. barbirostris</i>	•	•		•	•		•	•	Lagoons, marshes, pools, slow running streams, river banks, springs.	Rice fields, fish ponds, drainage ditches, wells.
<i>An. barbumbrosus</i>	•	•		•	•			•	River banks, clear streams emerging from jungle areas, open grassy ravines.	Rice fields.
<i>An. farauti</i> s.l.	•	•	•	•	•		•	•	Marshes, lagoons, large and small streams margins and floating wood and other natural debris, river banks.	Pools, fish ponds, irrigation ditches, pig-wallows, garden pools, tins, drums, coconut shells, canoes.
<i>An. flavirostris</i>		•		•	•		•	•	Springs, shaded grassy edges, slow-flowing small streams, pools.	Rice fields, irrigation ditches, wells.

*Continued*

**Table 3.4** The typical larval habitats of *Anopheles* malaria vectors in Indonesia—cont'd

Species or species complex	Light intensity		Water salinity		Water turbidity		Water movement		Habitat type	
	Sunlit	Shaded	Brackish	Fresh	Clear	Turbid	Stagnant	Flowing	Natural	Man-made
<i>An. karwari</i>		•		•	•		•		Marshes, small slow-moving streams, seepages, ground pools, rock pools, springs.	Irrigation canals associated with rice cultivation.
<i>An. kochi</i>	•	•	•	•	•	•	•	•	Marshes, pools, small streams.	Rice fields, fish ponds, buffalo wallows, wells, ditches, hoof prints.
<i>An. koliensis</i>	•	•		•	•		•		Small streams, ground pools, riverside ponds, marshes.	Pig ruts and wallows, ditches.
<i>An. leucosphyrus</i>		•		•	•		•	•	Marshes, small streams, seepage springs, jungle pools, ground depressions.	Fish ponds, wheel ruts, hoof prints.
<i>An. maculatus</i> s.l.	•			•	•			•	Stream-side rock pools, margins of small slow-moving streams, drying river beds, ground seepages, small pools, springs.	Rice fields, ponds, ditches.
<i>An. nigerrimus</i>	•			•	•		•		Lake margins, marshes, pools, small streams.	Rice fields, irrigation channels, large borrow pits.
<i>An. parangensis</i>	•	•	•	•	•	•	•		Coastal marshes, pools.	Fish ponds, ground depressions.

<i>An. punctulatus</i>	•		•	•	•	•			Freshwater coastal marshes, low-lying riverine areas, riverside pools, grasslands, along jungle edges, pools, ground depressions, rock pools in drying stream beds, earthen drains.	Foot prints, ditches, pig ruts, pits with grey turbid water, wheel ruts.
<i>An. sinensis</i>	•		•	•			•		Lake margins, marshes, small streams, bogs, slow-flowing rivers.	Rice fields, borrow pits, fish ponds, irrigation ditches.
<i>An. subpictus</i> s.l.	•	•	•	•	•	•	•		Tidal lagoons, coastal blocked freshwater rivers and streams, marshes, pools, rocky streams, mangrove forests, springs.	Rice fields, fish ponds, furrows in gardens, water tanks, buffalo wallows, brackish ponds, seaweed ponds, irrigation ditches.
<i>An. sundaicus</i> s.l.	•	•	•	•	•	•			Lagoons, marshes, pools, seasonally blocked coastal streams.	Fish ponds.
<i>An. tessellatus</i>	•	•	•	•	•	•	•		Ground pools.	Rice fields, fish ponds.
<i>An. vagus</i>	•	•	•	•	•	•			Stagnant margins of streams, river edges, small and swallow pools near beaches, springs.	Rice fields, irrigation ditches, wheel ruts, hoof prints, artificial containers (tyres, drums, upturned small boats).

The '•' mark denote the common habitat characteristics of individual *Anopheles* malaria vectors.

s.l. (*sensu lato*) indicates the existence or possibility of more than one sibling species is represented in Indonesia, therefore, collectively expanding the natural- and man-made habitats listed.