**Mosquito Larval Habitats**

**Phytotelma Classification:** (Greeney 2001)

1. Modified Leaves: *ML*

Water held by non-woody living plant tissue such as leaves or leaf axils of plant species *Serraciniaceae* and *Nepenthiniaceae* which have modified leaves for prey capture.

1. Flower Parts: *FP*

Water held by non-woody plant tissue such as flower parts from plant species *Zingiberaceae*, *Rafflesiaceae*, *Marantaceae,* and *Heliconiaceae*.

1. Leaf Axils: *LA*

Water held by non-woody plant tissue such as leaves or leaf axils that have collected rainwater. Plant species include *Bromeliaceae*, *Pandanaceae*, and *Palmae* (Greeney 2001). Other plant species include *Araceae*, *Colocasia*, *Cyperaceae*, *Hanguanaceae*, *Amaryllidaceae*, *Zingiberaceae*, *Asteliaceae*, and *Musaceae*.

1. Fruit Husks: *FH*

Water held by fallen plant parts such as fruits, husks, and seedpods from plant species *Sterculiaceae*, *Caricaceae*, *Cucurbitaceae*, and *Palmae*.

1. Fallen Plant Parts: *FPP*

Water held by fallen plant parts such as fallen leaves and fallen flower bracts. Fruits, husks, and seedpods are not included.

1. Tree Holes: *TH*

Water held by woody living or dead plant tissue such as stems, trunks, buttresses, and roots. Includes both fallen and standing trees and bamboo internodes.

1. Fungi: *FNG*

Water-containing cup fungi. Includes species of *Polystictus*.

**Artificial Containers:**

1. Artificial containers: *AC* (Rajavel et al. 2004)

Includes tin cans, pots, vases, barrels, tanks, canoes, cisterns, water drums, vehicles, troughs, cesspools, urns, tubs, basins, tanks, wells, boats, ornamental pools, bowls, water butts.

**Ground Pool Classification:** (Davies et al. 2004)

1. Permanent non-tidal, smooth-flowing watercourses: *C2.3*

Non-temporary water bodies that are not impacted by tide. Free-flowing with generally steady currents.

Includes:

* Rivers/backwaters: *RIV* (general abbreviation for river)
* Streams/creeks: *STM* (geological abbreviation for stream)
* Brooks/tributaries: *BRK* (general abbreviation for brook)

1. Tidal rivers upstream from the estuary: *C2.4*

Parts of rivers and streams that are affected by tides usually upstream from the estuary.

Includes:

* Tidal Rivers: *RIV* (general abbreviation for river)
* Tidal Streams/creeks: *STM* (geological abbreviation for stream)

1. Permanent non-tidal, fast, turbulent watercourses: *C2.2*

Non-temporary water bodies that are not impacted by tide. Free-flowing with generally rapid currents.

Includes:

* Fast Rivers: *RIV* (general abbreviation for river)
* Fast Streams/creeks/torrents: *STM* (geological abbreviation for stream)

1. Unvegetated or sparsely vegetated shores with soft or mobile sediments: *C3.6*

Banks, beds, or margins composed of sand, mud, or gravel.

Includes:

* Riverbed/banks/margins: *RIVM*
* Streambed/margins: *STMM*
* Lakebed/margins: *LKM*
* Pond margins: *POM*

1. Unvegetated or sparsely vegetated shores with non-mobile substrates: *C3.7*

Banks, beds, or margins composed of rocky surfaces.

Includes:

* Rocky Riverbed/banks/margins: *RIVM*
* Rocky Streambed/margins: *STMM*
* Rocky Lakebed/margins: *LKM*
* Rocky Pond margins: *POM*

1. Temporary running waters: *C2.5*

Water bodies that only flow for part of the year.

Includes:

* Temporary/blocked/intermittent/overflows of/dry beds of Rivers: *RIVT*
* Temporary/blocked/intermittent/overflows of/dry beds of Streams: *STMT*

1. Springs, spring brooks, and geysers: *C2.1*

Springs are discharges of hot water from a vent in the Earth’s surface. Geysers are more intermittent springs.

Includes:

* Springs/geysers/thermal pools: *SPG* (Standardization abbreviation)

1. Surface standing waters: *C1*

Non-flowing ground pools such as lakes, ponds, and others. Habitats vary between vegetation and nutrient content.

Includes:

* Lakes: *LK* (USPS/Standard Abbreviation/Rajevel et al. 2004)
* Ponds/billabongs: *PO* (Rajevel et al. 2004)
* (Other ground) Pools: *GP* (Rajavel et al. 2004)

1. Permanent saline/brackish lakes, ponds, and pools: *C1.5*

Salty, brackish water bodies that are non-flowing such as lakes, ponds, and other ground pools.

Includes:

* Brackish Lakes: *LKB*
* Brackish Ponds: *POB*
* Brackish (other ground) Pools: *GPB*

1. Temporary lakes, ponds, and pools: *C1.6*

Non-flowing water bodies such as lakes, ponds, and associated pools that are present for only part of the year.

Includes:

* Temporary Lakes: *LKT*
* Temporary Ponds: *POT*
* Temporary (other ground) Pools/floodpools/rain-filled pools/puddles: *GPT*

1. Seepage areas:

Water channels or ditches that result from the seepage or drainage or other water bodies.

Includes:

* Seepage: *SEP*
* Drainage/artificial drains/gutters/soak holes: *DRN*
* Ditches/pits/trenches/moats/gullies: *DTH*
* Potholes/craters: *PTH*

1. Communities of littoral and sublittoral Rockpools: *A1.41, A1.42*

Rock Pools or rock holes, generally coastal but also includes swamp, etc. Mostly saline water-holding, but also includes freshwater.

Includes:

* Freshwater rockpools/rock holes: *RP* (Rajevel et al. 2004)
* Brackish rockpools/rock holes/tidal pools/tidal flats/mudflats: *RPB*

1. Raised and Blanket Bogs: *D1*

A type of wetland that accumulates peat. Generally made up of moss.

Includes:

* Bogs: *BOG*

1. Mires: *D2.1*

Wetlands that consist of peat-forming vegetation.

Includes:

* Mires: *MR*

1. Swamps and Marshes: *D5.3*

Wetlands with dense vegetation such as reeds. Also considered wet grasslands. Found in areas such as jungles, forests, and others. May be specified such as mangrove or nipopalm swamps/marshes.

Includes:

* Swamps: *SW*
* Marshes: *MR*

1. Saline and Brackish Marshes/Swamps: *D6*

Includes:

* Brackish Swamps: *SWB*
* Brackish Marshes: *MRB*

1. Snow packs: *H4.1*

Pools in snow patches or as a result of melting snow or ice.

Includes:

* Snow pools/melting snow/frozen pools: *SNW*

1. Volcanic features: *H6*

Volcanic rock, lava pools, and associated substances from active or inactive volcanoes.

Includes:

* Volcanic rock holes/pools/lava: *VLC* (Geographical abbreviation)

1. Active underground mines: *J3.1*

Artificial underground areas used for mineral extraction and quarrying.

Includes:

* Mines/prospect holes: *MAQ* (Standard abbreviation for Mining & Quarrying)

1. Road networks: *J4.2*

Roadside pools, ditches, ruts, banks, potholes, and other associated pools.

Includes:

* Roadside pools/ditches/ruts/potholes/seepage: *RD* (Standard abbreviation for Road)

1. Construction pits:

Borrow pits or sand boxes used for construction purposes. Generally describes hole dug for use at another location.

Includes:

* Borrow pits/excavation pits: *BWP*

1. Constructed parts of cemeteries: *J4.7*

Hard-surfaced areas in graveyards, such as gravestones, cemetery containers, etc.

Includes:

* Cemetery/graveyard containers/gravestones: *CEM* (Standard abbreviation)

1. Artificial non-saline standing waters: *J5.3*

Man-made non-flowing water bodies such as artificial lakes, artificial ponds, etc.

Includes:

* Artificial lakes: *LKA*
* Artificial ponds: *POA*
* Artificial ground pools: *GPA*
* Artificial dams/reservoirs: *DAM*

1. Artificial non-saline running waters: *J5.4*

Artificial flowing watercourses such as canals and other man-made channels.

Includes:

* Canals: *CNL*

1. Non-agricultural organic waste: *J6.3*

Sewage waste in the form of drains, lagoons, and similar pools. Also includes polluted water pools.

Includes:

* Sewage pools/sewage ditches/sewage drains/sewage gutters: *SWG*

1. Household waste and landfill sites: *J6.2*

Polluted water as a result of any type of waste other than sewage.

Includes:

* Polluted pools: *PLT*

1. Limestone: *H2.2*

Limestone rock holes and other limestone-composed containers.

Includes:

* Limestone pools/rock holes: *LM*S(Standard abbreviation)
* Solution holes: *SOL*

1. Coral reefs (circalittoral/deep sea): *A5.63, A6.61*

Coral reefs/islets and similar areas. Generally coastal; includes shallow and deep-sea regions.

Includes:

* Coral islets/reefs/rock holes/depressions: *COR*

1. Shells: *A6.22*

Beached or deep-sea shells from various mollusks such as clam (*Tridacna*) and snail.

Includes:

* Shells (clam/snail/etc): *SHL*

1. Croplands: *I1.4*

Agricultural fields used to cultivate crops. Mostly describes rice fields. Also includes pastures utilized by grazing animals.

Includes:

* Rice fields/paddies: *RC*
* Vegetable paddies: *VEG*
* Plantations: *PNT*
* Irrigation channels/systems/pools: *IC* (Rajavel et al. 2004)
* Manure pits: *MNR*
* Pastures: *PST*

1. Garden areas: *I2*

Cultivates regions of gardens; includes both large-scale ornamental, and domestic gardens.

Includes:

* Garden pools: *GDN*

1. Lagoons: *A5.31*

Small stagnant water-bodies (usually saline and coastal) that separate from larger water bodies (usually the sea).

Includes:

* Lagoons (coastal/otherwise): *LGN* (Standard geographical abbreviation)

1. Tramples areas: *H5.6*

Human and other animal tracks. Also includes vehicle/wheel tracks.

Includes:

* Animal tracks/hoofprints/footprints: *ATR*
* Vehicle tracks/wheel tracks/ruts: *VTR*
* Hog/pig/carabao/buffalo wallows: *HGW*

1. Algal communities: *A3.13, A3.14, A3.15*

Water bodies (generally marine) that are composed of algae of a variety of species, from kelp to red algae.

Includes:

* Algal pools: *ALG*

1. Caves: *H1*

Natural and man-made caves. Includes cave entrance, interior, and other associated pools.

Includes:

* Cave pools: *CV*

1. Coastal dunes and sandy shores: *B1*

Coastal pools and sandy pools.

Includes:

* Sandy pools: *SND*
* Coastal/shoreline regions: *CST*

1. Crustacean ground holes:

Water-containing holes made by crabs, lobsters, crayfish, etc.

Includes:

* Crabholes/lobster holes: *CRH*

1. Animal burrows & warrens:

Ground holes and underground tunnels made and used by animals such as rabbits, wombats, rodents, and foxes.

Includes:

* Burrow pits/warrens/foxholes: *BP* (Rajavel et al. 2004)