

Records and Notes on Mosquitoes (Diptera: Culicidae) Collected in Egypt¹

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ABSTRACT. Notes and records are provided for mosquitoes collected in Egypt west of the Gulf of Suez during field studies conducted in 1983. Biological data and species associations are presented for 175 separate collections. Seventeen species were collected, including a new country record and an undescribed species. Topotypic material was collected for five nominal species and the type series of three *Culex* species described from Egypt were located in repositories in Cairo.

This report summarizes the data obtained during mosquito field studies conducted in Egypt between March 15 and May 21, 1983. These studies were part of a long-term collaborative arrangement between Ain Shams University, Research and Training Center on Vectors of Diseases in Cairo, the Naval Medical Research Unit No. 3 in Cairo, and the Walter Reed Biosystematics Unit located at the Museum Support Center, Smithsonian Institution, in Suitland, Maryland. Extensive collections were made in 1983 to determine the mosquito species present in Egypt, obtain large series of reared adults with preserved immature exuviae for use in biosystematics studies, and gather ecological and biological information useful in understanding the epidemiology of mosquito-borne diseases and the control of vector species. The principal purpose of this publication is to make the data obtained during these studies available to individuals concerned with the systematics, bionomics, medical importance, and control of mosquitoes occurring in Egypt and neighboring areas.

Our field studies were divided into two phases. Initially 21 days were spent in southern Egypt using the Regional Malaria Center in Aswan as our base. Areas sur-

¹The views of the authors do not purport to reflect the positions of the supporting agencies.

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vayed in the south included Abu Simbil near the Sudanese border, the Nile Valley from the Aswan High Dam north to Idfu, and the Red Sea coast between Qusier and Bernece. Twenty-seven days were spent in northern Egypt using Ain Shams University in Cairo as our base. Areas surveyed in the north included Siwa Oasis in the Libyan Desert, El-Fayyum Governorate, the Red Sea coast from Suez to Ras Shukheir, and the Nile Delta (see Fig. 1).

We made a total of 175 collections in 12 of the 26 governorates in Egypt. Almost all of these were larval collections. The collections yielded nearly 15,000 specimens representing 17 of the 23 species confirmed from Egypt west of the Gulf of Suez. These include a new country record and an undescribed species. The collections comprised nearly 5,000 adults and almost 2,500 fourth-instar larvae. Approximately 96% of the adults have associated larval and pupal exuviae.

Taxonomic Notes

Table 1 lists the species of mosquitoes currently known from Egypt, including the Sinai Peninsula. Twenty-three species are known to occur west of the Gulf of Suez. We collected 17 of these in 1983.

We found mosquitoes in abundance in every body of water in Egypt except in alkaline lakes in Wadi Natrun and the Nile River and the main canals radiating from it. *Aedes* (*Ochlerotatus*) *caspius* (Pallas), *Culex* (*Culex*) *pipiens* Linnaeus, and *Culiseta* (*Allotheobaldia*) *longiareolata* (Macquart) were collected as larvae wherever collections were made. The species collected while landing on or biting man included: *Anopheles* (*Anopheles*) *algeriensis* Theobald, *Anopheles* (*Cellia*) *sergentii* (Theobald) *Ae. caspius*, *Aedes* (*Ochlerotatus*) *detritus* (Haliday), *Cx. pipiens*, *Culex* (*Culex*) *theileri* Theobald, and *Culiseta* (*Culiseta*) *subochrea* (Edwards). *Aedes caspius*, *Ae. detritus*, and *Cx. pipiens* were the most frequent biters during the period of these collections.

Collections were made at the type localities of 12 nominal species described from Egypt west of the Gulf of Suez. Fourteen species have been described from this area of Egypt, but the type locality of *Culex* (*Maillotia*) *deserticola* Kirkpatrick was not visited and that of *Aedes* (*Stegomyia*) *aegypti* (Linnaeus) shifted from Egypt to Kuala Lumpur, Selangor, Malaysia with the designation and validation of a neotype (Mattingly et al. 1962; ICZN 1964). *Aedes aegypti* has not been found in Egypt since 1963 (Gad and Salit 1972). We collected topotypic material for six species, including: (1) *Culex molestus* Forskal, which was recently recognized as a synonym of *Cx. pipiens* based on the designation of a neotype from specimens collected during these studies (Harbach et al. 1984); (2) *Anopheles impunctus* Doenitz, a synonym of *Anopheles* (*Cellia*) *multicolor* Cambouliu; (3) *Taeniorhynchus africanus* Neveu-Lemaire, a synonym of *Ae. caspius*; (4) *Culex pallipes* Macquart and (5) *Culex longefurcatus* Becker, both synonyms of *Cx. pipiens*; and (6) *Culex* (*Barraudius*) *pusillus* Macquart. Topotypic material was not obtained for *Anopheles* (*Cellia*) *pharoensis* Theobald, *Anopheles maculicosta* Becker (synonym of *An. pharoensis*), *Anopheles subtilis* Pressat (synonym of *Anopheles* (*Anopheles*) *tenebrosus* Doenitz), *Aedes willcocksii* Theobald (synonym of *Ae. caspius*), *Culex* (*Lasiosiphon*) *adairi* Kirkpatrick, and *Culex* (*Culex*) *antennatus* (Becker).

Table 1. List of mosquitoes from Egypt (with notes).

- **Anopheles (Anopheles) algeriensis* Theobald (western oases)
- Anopheles (Anopheles) tenebrosus* Doenitz (fresh water only)
- Anopheles (Cellia) dthali* Patton (Sinai only)
- Anopheles (Cellia) hispaniola* (Theobald) (Sinai only)
- **Anopheles (Cellia) multicolor* Cambouliu (brackish water, common, suspected malaria vector)
- **Anopheles (Cellia) pharoensis* Theobald (malaria vector)
- Anopheles (Cellia) rhodensis rupicolus* Lewis (Sinai only)
- **Anopheles (Cellia) sergentii* (Theobald) malaria vector)
- Anopheles (Cellia) superpictus* Grassi (southwestern oases and Sinai)
- Anopheles (Cellia) turkhudi* Liston (Sinai only)
- **Anopheles (Cellia) n. sp.* (inland salt swamps near Red Sea coast)
- **Aedes (Ochlerotatus) caspius* (Pallas) (brackish water, vicious biter)
- **Aedes (Ochlerotatus) detritus* (Haliday) (brackish water, vicious biter)
- **Culex (Barraudius) pusillus* Macquart (common, slightly brackish water)
- **Culex (Culex) antennatus* (Becker) (very common in Delta, suspected or secondary filarial vector)
- **Culex (Culex) laticinctus* Edwards (more common in Sinai)
- Culex (Culex) mimeticus* Noe (Siwa Oasis and Sinai)
- **Culex (Culex) perexiguus* Theobald (common, fresh water)
- **Culex (Culex) pipiens* Linnaeus (common; fresh, brackish, and polluted water; filarial vector)
- **Culex (Culex) poicilipes* (Theobald) (uncommon, fresh water)
- Culex (Culex) sinaiticus* Kirkpatrick (Sinai only)
- **Culex (Culex) theileri* Theobald (common, slightly brackish water)
- Culex (Culex) tritaeniorhynchus* Giles (southwestern oases only)
- Culex (Lasiosiphon) adairi* Kirkpatrick (rare, wadis of Eastern Desert)
- Culex (Maillotia) arbieeni* Salem (Sinai only)
- Culex (Maillotia) deserticola* Kirkpatrick (oases and desert wadis)
- **Culiseta (Culiseta) subochrea* (Edwards) (fresh water)
- **Culiseta (Allothobaldia) longiareolata* (Macquart) (common; fresh, brackish, and polluted water)
- **Uranotaenia (Pseudoficalbia) unguiculata* Edwards (fairly common)

*Species collected by us in 1983.

Some important name changes or interpretations have been made or will be made regarding a number of the mosquitoes occurring in Egypt and other countries in the Middle East. Briefly these include:

(1) *Aedes caspius* and *Ae. detritus* both probably represent at least two sibling species.

(2) *Anopheles tenebrosus* was previously considered to be *Anopheles (Anopheles) coustani* Laveran (as *Anopheles mauritanus* De Grandpre and DeCharmoy) in Egypt (Kirkpatrick 1925, Salem 1938).

(3) *Anopheles* n. sp. was previously considered to be *Anopheles (Cellia) stephensi* Liston (Gad 1967).

(4) *Culex molestus* does not warrant specific or subspecific status based on autogeny and should be called *Cx. pipiens* in Egypt (Harbach et al. 1984).

(5) *Culex (Culex) perexiguus* Theobald is currently recognized as the name for the form previously called *Culex (Culex) univittatus* Theobald in Egypt (White 1975, Harbach 1988).

(6) *Culiseta subochrea* was previously recorded as *Culiseta (Culiseta) annulata* (Schränk) from Siwa Oasis (Gad 1956) and is now known to occur as far south as Aswan.

Finally, we had the opportunity to examine the mosquito collections housed in the Dokki Institute (Ministry of Agriculture) and the Entomological Society of Egypt in Cairo. Specimens believed to be Kirkpatrick's syntypes of *Culex (Culex) sinaiticus*, *Cx. adairi* (as *Culex pluvialis*), and *Cx. deserticola* were located in both collections. The locations of the type specimens of *Cx. adairi* and *Cx. deserticola* were not mentioned by Steyskal and El-Bialy (1967) and were regarded as unknown (Knight and Stone 1977). The type series of *Cx. sinaiticus* consists of 12 males and 11 females, *Cx. adairi* of 4 males and 2 females, and *Cx. deserticola* of 1 male and 2 females.

Collection Records

Data pertaining to each collection (locality, general environment, specific habitat, rearing information, etc.) was recorded on the collection form adopted by the Mosquito Information Management Project (MIMP) and entered into the MIMP computer data base at the Smithsonian Institution (Faran et al. 1985). The MIMP was terminated in 1987 and the collection records are retained at the Walter Reed Biosystematics Unit. The data for the collections are presented below in the following order to the extent available: Collection number, governorate, nearest town, specific locality (military grid reference coordinates or latitude/longitude), approximate elevation above or below sea level; date. [For collection of immatures] General environment, breeding site, distance from nearest house; water conditions; pollutants and/or bottom conditions, vegetation in breeding site; relative light intensity. Species collected. [For collections of landing and biting adults] Host and collection site, distance from nearest house. Hours of collection - species collected.

001. Aswan Gov., Aswan, Aswan Dam East Colony (36RVM875587), 117 m; 24 Mar 1983. Domestic/cultivated area, medium-sized flooded (seepage) pool, 20 m from nearest house; water temporary, stagnant, clear, fresh, shallow; with scarce submerged and emergent grassy vegetation and green algae; partial shade. *Cx. perexiguus*, *Cx. theileri*.

002. Aswan Gov., Aswan, Aswan Dam East Colony (36RVM875587), 115 m; 24 Mar 1983. Domestic area, margin of Nile River; water permanent, with slow current, clear, fresh; with organic pollution, rock bottom, scarce emergent herbaceous plants, green algae; full sun. *Cx. perexiguus*, *Cx. pipiens*.

003. No collection.

004. Aswan Gov., Aswan, Nag el-Ashbab (36RVM897678), 16 m; 25 Mar 1983. Cultivated area, irrigation ditch flowing into Nile River; water temporary, with slow current, clear, fresh; with mud bottom, abundant submerged and emergent grass and herbaceous plants and green algae; moderate shade. *Cx. pipiens*.

005. Aswan Gov., Aswan, Nagel-Shalabab (36RVM889693), 16 m; 25 Mar 1983. Domestic/cultivated area, small seepage pools at margin of Nile River; water permanent, with slow current, clear, fresh; with anaerobic pollutants, mud bottom, some emergent grass; full sun. *Cx. perexiguus*, *Cx. pipiens*.

006. Aswan Gov., Aswan, Nag Gami' el-Gezira (36RVM904670), 16 m; 25 Mar 1983. Domestic/cultivated area, small ditch or canal between road and railway; water permanent, with slow current, very turbid, fresh; with heavy inorganic and organic pollutants, mud bottom, abundant floating and emergent grass and herbaceous plants, green algae; full sun. *Cx. pipiens*.

007. Aswan Gov., Aswan, El-'Aqaba el-Saghira (36RVM878805), 50 m; 25 Mar 1983. Domestic/cultivated area, large marsh near road and railway; water permanent, stagnant, clear, color slightly brown, fresh; with some organic pollutants, mud bottom, dead plant matter, abundant submerged, floating and emergent grass and herbaceous plants (mainly cattails and saw grass), floating green algae; partial shade. *Ae. caspius*, *Cx. antennatus*, *Cx. perexiguus*, *Cx. theileri*.

008. Aswan Gov., Aswan, Khour Abu Subeira (Hod Subeira) (36RVM878785), 50 m; 25 Mar 1983. Cultivated area, small deep circular cattail pool (old well); water permanent, stagnant, clear, fresh; with mud bottom, dead plant matter, some emergent herbaceous plants, very little green algae; partial shade. *Ae. caspius*, *Cx. perexiguus*, *Cx. pipiens*, *Cs. longiareolata*, *Ur. unguiculata*.

009. Aswan Gov., Aswan, Khour Abu Subeira (Hod Subeira) (36RVM882785), 50 m; 25 Mar 1983. Cultivated area, medium-sized flooded ground pool opposite irrigation ditch; water temporary, stagnant, clear, fresh, shallow; with mud bottom, some emergent grass; partial shade. *Ae. caspius*, *Cx. perexiguus*, *Cx. pipiens*, *Cs. longiareolata*.

010. Aswan Gov., Aswan, Khour Abu Subeira (Hod Subeira) (36RVM882785), 50 m; 25 Mar 1983. Cultivated area, medium-sized flooded pool near irrigation ditch; water temporary, stagnant, turbid, fresh, very shallow; with mud bottom, some emergent grass and floating herbaceous plants; partial shade. *Ae. caspius*, *Cx. pipiens*, *Cs. longiareolata*.

011. Aswan Gov., Aswan, Nag' Tingar, colony east of Aswan High Dam (23 58 30N 32 58 00E), 160 m; 26 Mar 1983. Domestic area, medium-sized cattail pool behind school; water semipermanent, with slow current, turbid, fresh; with organic pollutants, mud bottom, some submerged, floating and emergent grass and herbaceous plants, green algae; full sun. *Cx. perexiguus*, *Cx. pipiens*, *Cs. longiareolata*.

012. Aswan Gov., Aswan, Nag' Tingar, colony east of Aswan High Dam (23 58 30N 32 58 00E), 160 m; 26 Mar 1983. Cultivated area, small irrigation ditch; water temporary, with slow current, clear, fresh; with mud bottom, some submerged and emergent grass, green algae; full sun. *Cs. longiareolata*.

013. Aswan Gov., Aswan, Nag' Tingar (23 59N 32 58E), 160 m; 26 Mar 1983. Ground pool/marshy depression, two mixed pools very close to each other (anophelines in small shallow pool with no vegetation; with salt encrusted sand and soil); water semipermanent, stagnant, clear, brackish; with mud and sand bottom, some submerged, floating, and emergent grass and herbaceous plants, green algae; full sun. *An. tenebrosus*, *An. multicolor*, *Ae. caspius*, *Cx. perexiguus*, *Cx. pipiens*.

014. Aswan Gov., Aswan, Nag' Tingar (23 59N 32 58E), 160 m; 26 Mar 1983. Large ground pool with water up to depth of about 0.5 m; water permanent, stagnant, clear, fresh; with mud and rock bottom, some clusters and patches of emergent grass, floating herbaceous plants, green algae; partial shade. *An. tenebrosus*, *Cx. perexiguus*.

015. Aswan Gov., Aswan, Nag' Tingar (23 59N 32 58E), 160 m; 26 Mar 1983. Small isolated ground pool near donkey trail; water temporary, stagnant, clear, fresh, shallow; some emergent grass, floating needles and debris, surrounded by small tamarisk trees; partial shade. *Ae. caspius*, *Cx. perexiguus*, *Cx. pipiens*, *Cx. theileri*, *Cs. longiareolata*, *Cs. subochrea*, *Ur. unguiculata*.

016. Aswan Gov., Aswan, Nag' Tingar (23 59N 32 58E), 160 m; 26 Mar 1983. Large marsh; water permanent, stagnant, clear, color slightly yellow, fresh; with mud and sand bottom, many fresh water insects, sparse floating vegetation, dense patch of cattails, green algae; deep shade. *An. tenebrosus*, *Cx. pipiens*, *Cs. longiareolata*.

017. Aswan Gov., Aswan, Sahara City (23 59 15N 32 50 30E), 200 m; 26 Mar 1983. Small pockets of water in dense growth of tall grass in large marsh near Aswan airport; water permanent, stagnant, slightly turbid, fresh; with mud bottom, abundant floating and emergent grass, green algae; partial shade. *Ae. caspius*, *Cx. pusillus*, *Cx. pipiens*, *Cs. longiareolata*, *Cs. subochrea*, *Ur. unguiculata*.

018. Aswan Gov., Aswan, Sahara City (23 59 15N 32 50 30E), 200 m; 26 Mar 1983. Small ground pool adjacent to marsh; water temporary, stagnant, clear, fresh, shallow; with mud bottom, some salt around margins, some emergent grass and floating green algae; full sun. *An. multicolor*, *Ae. caspius*, *Cx. perexiguus*, *Cx. pipiens*, *Cs. longiareolata*, *Cs. subochrea*.

019. Aswan Gov., Aswan, Sahara City (23 59 15N 32 50 30E), 200 m; 26 Mar 1983. Interior of large marsh; water permanent, stagnant, clear, tinted yellow, fresh;

with mud bottom, abundant emergent reeds (*Phragmites* sp.); deep shade. *Cx. perexiguus*, *Cx. pipiens*, *Cs. subochrea*.

020. Aswan Gov., Aswan, Sahara City (23 59 15N 32 50 30E), 200 m; 26 Mar 1983. Pool inside marshy area; water permanent, stagnant, turbid, color yellow, fresh; with mud bottom, abundant emergent grass, clumps of floating green algae; deep shade. *Cx. pipiens*, *Cs. longiareolata*, *Cs. subochrea*.

021. Aswan Gov., Aswan, High Dam Colony East (23 58 30N 32 53 30E), 200 m; 27 Mar 1983. Domestic area, margin of large marsh; water permanent, stagnant, clear, fresh; with mud bottom, abundant emergent cattails, some floating herbaceous plants, green algae; partial shade. *Cx. pipiens*.

022. Aswan Gov., Aswan, High Dam Colony East (23 58 30N 32 53 30E), 200 m; 27 Mar 1983. Domestic area, shallow margin of large marsh; water permanent, stagnant, clear, fresh; with mud bottom, decaying plant matter, abundant emergent grass and cattails, submerged plants, floating green algae; full sun. *An. tenebrosus*, *Ae. caspius*, *Cx. perexiguus*, *Cx. pipiens*, *Cs. longiareolata*, *Cs. subochrea*.

023. Aswan Gov., Aswan, High Dam Colony East (23 58 30N 32 53 30E), 200 m; 27 Mar 1983. Domestic area, narrow channel between tall dense cattails and reeds at margin of large marsh; water permanent, stagnant, clear, fresh; with mud bottom, abundant emergent grass; partial shade. *An. tenebrosus*, *Cx. perexiguus*, *Cx. pipiens*.

024. Aswan Gov., Aswan, Sahara City (23 59 30N 32 50 0E), 200 m; 27 Mar 1983. Small pool adjacent to marsh (same site as 018); water temporary, stagnant, clear, fresh, shallow; with mud bottom, some emergent grass, green algae; full sun. *Cx. pusillus*, *Cx. perexiguus*, *Cx. pipiens*, *Cx. theileri*, *Cs. longiareolata*, *Cs. subochrea*.

025. Aswan Gov., Aswan, Sahara City (23 59 15N 32 50 30E), 200 m; 27 Mar 1983. Ground pool adjacent to marsh; water temporary, stagnant, clear, fresh, shallow; with mud bottom, some short emergent grass (0.5-1.5 m), floating grass tassels; full sun. *Ae. caspius*, *Cx. perexiguus*, *Cx. pipiens*, *Cs. longiareolata*, *Cs. subochrea*.

026. Aswan Gov., Aswan, Sahara City (23 59 15N 32 50 30E), 200 m; 27 Mar 1983. Large marsh; water permanent, with slow current, clear, fresh, deep; with mud bottom, abundant tall emergent grass; deep shade. *Cx. pipiens*, *Cs. subochrea*.

027. Aswan Gov., Aswan, Sahara City (23 59 15N 32 50 30E), 200 m; 27 Mar 1983. Adults landing and biting on human in interior of large freshwater marsh. *Cs. subochrea*.

028. Aswan Gov., Aswan, in front of Stadium (36RVM917617), 100 m; 29 Mar 1983. Domestic area, small ground pool; water temporary, stagnant, clear, fresh; with mud bottom, scarce emergent grass. *Cx. pipiens*, *Cs. longiareolata*.

029. Aswan Gov., Aswan, in front of Stadium (36RVM917617), 29 Mar 1983. Domestic area, edge of large marsh; water permanent, stagnant, clear, fresh; with mud

bottom, abundant emergent grass and reeds, herbaceous plants, floating green algae; partial shade. *Ae. caspius*, *Cx. antennatus*, *Cx. perexiguus*, *Cx. pipiens*.

030. Aswan Gov., Aswan, in front of Stadium (36RVM917617), 29 Mar 1983. Domestic area, margin of medium-sized marsh; water permanent, stagnant, clear, fresh; with mud bottom, some short emergent grass; full sun. Most specimens collected under clump of grass hanging over water from shore. *Ae. caspius*, *Cx. pipiens*.

031. Aswan Gov., Aswan, El Said El Badway Cemetery (36RVM917618), 100 m; 29 Mar 1983. Domestic area, small pool near small seepage area; water temporary, stagnant, clear, fresh; with mud bottom, some emergent rushes; full sun. *Ae. caspius*, *Cx. pipiens*.

032. Aswan Gov., Aswan, Birket El Damas (36RVM909638), 100 m; 29 Mar 1983. Domestic area, margin of large pond; water permanent, stagnant, clear, fresh; with mud bottom, some emergent grass and reeds, floating green and brown algae; full sun. *An. multicolor*.

033. Aswan Gov., Aswan, Birket El Damas (36RVM909638), 100 m; 29 Mar 1983. Domestic area, interior of large pond; water permanent, stagnant, clear, fresh; with mud bottom, some emergent *Juncus*, floating green algae; collection made 5 m from shore among rushes and floating grass and algae, water about 0.5 m deep; full sun. *Cx. pusillus*, *Cx. pipiens*, *Cx. theileri*, *Cs. longiareolata*.

034. Aswan Gov., Aswan, in front of Stadium (36RVM917617), 100 m; 29 Mar 1983. Domestic area, adult biting human at edge of marsh. *Ae. caspius*.

035. Aswan Gov., Aswan, Nag' el-Higab (36RVM895682), 100 m; 30 Mar 1983. Domestic area, pools in interior of nearly dry medium-sized marsh; water semipermanent, stagnant, clear, fresh; with mud bottom, abundant emergent grass, floating green algae; full sun. *Ae. caspius*, *Cx. perexiguus*.

036. Aswan Gov., Aswan, Khour Abu Subeira (Hod Subeira) (36RVM878785), 50 m; 30 Mar 1983. Cultivated area, small deep circular cattail pool (old well) (same site as 008); water permanent, stagnant, clear, fresh; with mud bottom, dead plant matter, some emergent herbaceous plants and very little green algae; partial shade. *Cx. antennatus*, *Cx. perexiguus*, *Cx. pipiens*, *Cs. subochrea*.

037. Aswan Gov., Aswan, Khour Abu Subeira (Hod Subeira) (36RVM878783), 50 m; 30 Mar 1983. Cultivated area, old irrigation well (small); water permanent, stagnant, clear, fresh, 2 m below ground level; with mud bottom, some emergent cattails, floating green and brown algae; deep shade. *Cx. pipiens*, *Cs. longiareolata*.

038. Aswan Gov., Idfu, Nag el-Idwa el-Bahari (36RVN906612), 85 m; 31 Mar 1983. Domestic/cultivated area, small ditch pool; water temporary, stagnant, clear, color yellow, fresh, shallow; with mud bottom, abundant emergent cattails, green algae; partial shade. *Ae. caspius*, *Cx. perexiguus*, *Cx. pipiens*.

039. Aswan Gov., Idfu, Nag el-Ritag el-Qibli (36RVN887521), 90 m; 31 Mar 1983. Grazing area, medium-sized ground pool about 5 m from highway, 200 m from nearest house; water semipermanent, stagnant, brackish; with mud bottom, some emergent grass, algae; full sun. *Ae. caspius*, *Cx. antennatus*, *Cx. perexiguus*, *Cx. pipiens*, *Cs. longiareolata*, *Ur. unguiculata*.

040. Aswan Gov., between Idfu and Kom Ombo, Nag el-Kagug (36RVN946291), 88 m; 31 Mar 1983. Domestic area, medium-sized pond near road (*Anopheles* found in small depressions around edge), 10 m from nearest house; water semipermanent, stagnant, turbid, color yellow, brackish; with mud bottom, scarce emergent grass, green algae, pond sprayed recently for mosquito control; full sun. *An. multicolor*, *Ae. caspius*, *Cx. antennatus*, *Cx. perexiguus*.

041. Aswan Gov., Kom Ombo, Ezbet el-Silsila (36RVN949181), 92 m; 31 Mar 1983. Domestic area; medium-sized pond beside road, 40 m from nearest house; water permanent, stagnant, clear, fresh; with mud bottom, anaerobic and other pollutants, scarce emergent cattails, large masses of floating green algae; full sun. *Ae. caspius*, *Cx. antennatus*, *Cx. perexiguus*, *Cx. pipiens*.

042. No collection.

043. Aswan Gov., Aswan, Nag' Tingar (23 59N 32 58E), 160 m; 2 Apr 1983. Adult biting human in marsh. *An. tenebrosus*.

044. Aswan Gov., Aswan, Nag' Tingar (23 59N 32 58E), 160 m; 2 Apr 1983. Small ground pool beside marsh; water temporary, stagnant, clear, brackish, shallow (water had to be added to collect with dipper); with mud and sand bottom, some vegetation; full sun. *An. multicolor*, *Ae. caspius*.

045. Aswan Gov., Aswan, Nag' Tingar (23 59N 32 58E), 160 m; 2 Apr 1983. Large marsh; water semipermanent, stagnant, clear, fresh; with mud, rock and plant matter on bottom, some floating and emergent grass, green and brown algae; full sun. *Cx. perexiguus*.

046. Aswan Gov., Aswan, Nag' Tingar (23 59N 32 58E), 160 m; 2 Apr 1983. Small ground pool in rocks at edge of marsh; water semipermanent, stagnant, clear, fresh; with mud, rock and plant matter on bottom, some floating herbaceous plants, emergent grass, green algae; partial shade. *Cx. perexiguus*, *Cx. pipiens*.

047. Aswan Gov., Aswan, Nag' Tingar (23 59N 32 58E), 160 m; 2 Apr 1983. Small ground pool in rocks at edge of marsh; water temporary, stagnant, clear, fresh; with mud, rock and plant matter on bottom, some floating plant matter, emergent grass, full sun. *Cx. perexiguus*, *Cx. pipiens*.

048. Aswan Gov., Aswan, Nag' Tingar (23 59N 32 58E), 160 m; 2 Apr 1983. Isolated medium-sized ground pool adjacent to marsh; water semipermanent, stagnant, clear, fresh; with mud, rock and plant matter on bottom, some floating and emergent grass, green algae, surrounded by dense grass and reeds and few short tamarisk trees;

deep shade. *An. tenebrosus*, *Ae. caspius*, *Cx. perexiguus*, *Cs. longiareolata*, *Cs. subochrea*.

049. Aswan Gov., Aswan, Ezbet Gharb Soheil (36RVM862588), 100 m; 3 Apr 1983. Domestic area, medium-sized ground pool 10 m from Nile River; water semipermanent, stagnant, clear, fresh, pH 7.0; with mud bottom, scarce barely emergent grass, green algae; pool in full algal bloom, color very green; full sun. *An. multicolor*.

050. Aswan Gov., Aswan, Nag' el-Seil, Birket el-Damas (36RVM913641), 100 m; 3 Apr 1983. Domestic area, medium-sized ground pool at edge of road; water temporary, stagnant, clear, color yellow, fresh, pH 7.5; with mud bottom, abundant emergent grass; full sun, larvae collected mostly around large rock and at margin of pool in dense short grass. *An. multicolor*, *Cx. perexiguus*, *Cx. pipiens*.

051. Aswan Gov., Aswan, Nag' el-Seil, Birket el-Damas (36RVM913641), 100 m; 3 Apr 1983. Domestic area, medium-sized ground pool near site 050; water temporary, stagnant, clear, color yellow, fresh, pH 7.5; polluted, smell of sewage evident, mud bottom, some emergent grass; full sun. *Cx. perexiguus*, *Cx. pipiens*.

052. Aswan Gov., Aswan, Nag' el-Seil, Birket el-Damas (36RVM909638), 100 m; 3 Apr 1983. Domestic area, large pond (same site as 033); water permanent, stagnant, clear, fresh; with mud bottom, some floating and emergent grass, green algae; full sun. *Cx. pipiens*, *Cx. theileri*.

053. Aswan Gov., Aswan, Nag' el-Seil, Birket el-Damas (36RVM909638), 100 m; 3 Apr 1983. Domestic area, upper end of pond in which collection 052 was made but totally isolated from lower end by rock wall; water permanent, stagnant, clear, color yellow, fresh, less than 0.5 m deep; with mud bottom, some clumps of emergent reeds, green algae; full sun. *An. multicolor*, *Cx. pusillus*.

054. Aswan Gov., Kom Ombo, Ezbet el-Silsila (36RVN948199), 93 m; 5 Apr 1983. Cultivated area, large marsh; water semipermanent, with slow current, clear, fresh; with mud bottom, many emergent rushes and reeds, some short grass, floating green algae; full sun. *Cx. perexiguus*.

055. Aswan Gov., Kom Ombo, Ezbet el-Silsila (36RVN949181), 92 m; 5 Apr 1983. Domestic area, medium-sized pond beside road (same site as 041), 40 m from nearest house; water permanent, stagnant, clear, fresh; with mud bottom, anaerobic and other pollutants, few clumps of emergent cattails, some *Typha*, large masses of floating green algae; full sun. *Cx. antennatus*, *Cx. perexiguus*, *Cx. pipiens*.

056. Aswan Gov., Kom Ombo, Ezbet el-Silsila (36RVN950181), 92 m; 5 Apr 1983. Domestic/cultivated area, depression between road and railway with small pockets of water (some animal tracks) in drying marsh (across road from site 055); water temporary, stagnant, clear, fresh; with mud bottom, dense emergent grass; full sun. *Ae. caspius*.

057. Aswan Gov., Kom Ombo (36RVN945065), 100 m; 5 Apr 1983. Domestic area, small cesspit; water permanent, stagnant, turbid, fresh, pH 7.5, polluted; partial

shade provided by concrete cover with 3 small openings, water about 0.3 m below cover. *Cx. perexiguus*, *Cx. pipiens*.

058. Aswan Gov., Kom Ombo, near ruins of Kom Ombo temple (36RVN936047), 90 m; 5 Apr 1983. Grazing area, margin of small stream; water permanent, slow, clear, fresh, pH 7.5; with mud and plant matter on bottom, abundant emergent grass; partial shade. *An. tenebrosus*, *Cx. perexiguus*.

059. Aswan Gov., Kom Ombo, near ruins of Kom Ombo temple (36RVN936047), 90 m; 5 Apr 1983. Grazing area, margin of large marsh, water flowing into marsh from pipe 3-4 m from point of collection; water permanent, stagnant, clear, fresh, pH 7.5; with mud bottom, abundant floating moss between tall grass and cattails; deep shade. *An. tenebrosus*.

060. Aswan Gov., Dawar, Dar el-Salam (36RVM928982), 90 m; 6 Apr 1983. Margin of large pond near road and railway, 1 km from nearest house; water permanent, stagnant, clear, fresh; with mud and plant matter on bottom, some emergent grass and reeds, some floating green algae; full sun. *An. multicolor*, *Ae. caspius*, *Cx. pusillus*.

061. No collection.

062. Aswan Gov., Dawar, Dar el-Salam (36RVM929982), 90 m; 6 Apr 1983. Small ground pool directly under very low branches of small tamarisk trees; water temporary, stagnant, clear, color yellowish-brown, fresh; with mud bottom, no vegetation. *Ae. caspius*, *Cx. pipiens*.

063. Aswan Gov., Dawar, Dar el-Salam (36RVM925982), 90 m; 6 Apr 1983. Medium-sized ground pool at side of road (across road from site 060); water temporary, stagnant, clear, color yellowish-brown, brackish; with mud and sand bottom, some emergent reeds, salt adhering to roots of plants and sandy margin; partial shade. *An. multicolor*, *Ae. caspius*.

064. Aswan Gov., Aswan, El-'Aqaba el-Saghira (36RVM878805), 50 m; 6 Apr 1983. Domestic/cultivated area, large marsh; water permanent, stagnant, clear, color slightly brown, fresh; with mud and plant matter on bottom, abundant submerged and emergent grass and herbaceous plants, floating green algae; partial shade. *Cx. perexiguus*.

065. Aswan Gov., Aswan, El-'Aqaba el-Saghira (36RVM878805), 50 m; 6 Apr 1983. Domestic/cultivated area, large marsh (shallow end of marsh opposite site 064); water permanent, stagnant, clear, color slightly brown, fresh; with mud and plant matter on bottom, abundant submerged and emergent grass and herbaceous plants, little or no floating green algae; partial shade. *Cx. perexiguus*.

066. El-Bahr El-Ahmar (Red Sea) Gov., Marsa Alaam (25 04N 34 53E), 3-5 m; 6 Apr 1983. Domestic area, large brick cistern with cement lid; water permanent, stagnant, clear, color red, brackish; pH 7.5, polluted, about 2 m below ground level; deep shade. *Cx. pipiens*.

067. No collection.

068. El-Bahr El-Ahmar (Red Sea) Gov., Quseir (26 07N 34 16E), 3-5 m; 6 Apr 1983. Domestic area, mixed medium-sized cesspits with cement lids, 2 m from nearest house; water semipermanent, stagnant, turbid, color orange, brackish; with moderate anaerobic pollution; deep shade. *Ae. caspius*, *Cx. pipiens*.

069. El-Bahr El-Ahmar (Red Sea) Gov., Quseir, 8 km west of Quseir (26 07N 34 14E), 20-30 m; 6 Apr 1983. Small isolated ground pool beside road, over 1 km from nearest house; water temporary, stagnant, turbid, color red, brackish; with mud bottom, bent over rushes and green algae, salt crystals around edge; partial shade. *Ae. caspius*.

070. El-Bahr El-Ahmar (Red Sea) Gov., Quseir, 8 km west of Quseir (26 07N 34 14E), 20-30 m; 6 Apr 1983. Large spring/seepage area, over 1 km long and 70-100 m wide, with many small stream channels up to 1 m deep, larvae collected primarily in very shallow water around dense patches of rushes (*Juncus* sp.), over 1 km from nearest house; water permanent, with slow current, clear, fresh, pH 6.5; with mud and sand bottom, abundant submerged and emergent grass and rushes, green algae; partial shade. *An. sergentii*, *Ae. caspius*, *Cx. pusillus*, *Cx. pipiens*.

071. El-Bahr El-Ahmar (Red Sea) Gov., Quseir, 8 km west of Quseir (26 07N 34 14E), 20-30 m; 6 Apr 1983. Adult biting human at side of road (same site as 070). *Ae. caspius*.

072. El-Bahr El-Ahmar (Red Sea) Gov., Bernece, Bernece airport, 70 km south of Abu Ghoson (23 57N 35 38E), 3-5 m; 7 Apr 1983. Domestic area, medium-sized cesspit with cement lid, 2 m from health clinic; water semipermanent, stagnant, turbid, color orange, brackish, pH 7.0; with heavy organic pollution (vegetables, dead rats, meat and human waste), strong smell of oil; deep shade. *Cx. pipiens*.

073. El-Bahr El-Ahmar (Red Sea) Gov., Marsa Alaam, Wadi el-Gemal, 50 km south of Marsa Alaam (24 40N 35 07E), 3-5 m; 7 Apr 1983. Large ground pool about 75 m from Red Sea, over 1 km from nearest house; water semipermanent, stagnant, clear, color yellow, brackish, pH 6.0; with mud and plant debris on bottom, some emergent rushes (*Juncus* sp.) and grass, green algae; full sun. *Ae. caspius*.

074. Aswan Gov., Abu Simbil, behind resthouse for clinic doctor (22 20 00N 31 35 45E), 190 m; 8 Apr 1983. Domestic area, medium-sized cesspit 4 m from house, sprayed with 4 liters of malathion day before; water semipermanent, stagnant, turbid, fresh; with vegetable and animal waste, many dead and living (resistant) larvae and pupae; partial shade. *Cx. pipiens*.

075. Aswan Gov., Abu Simbil (22 20 00N 31 35 45E), 190 m; 8 Apr 1983. Medium-sized cesspit beside south town parliament building, 4 m from building, sprayed with malathion 4 days earlier; water semipermanent, stagnant, clear, fresh; with vegetable and animal waste; partial shade. *Cx. pipiens*.

076. Aswan Gov., Abu Simbil (22 20 00N 31 35 20E), 220 m; 8 Apr 1983. Medium-sized cesspit behind fire station at Abu Simbil airport, 2 m from building;

water semipermanent, stagnant, clear, fresh; with low anaerobic pollution, vegetable and animal waste partial shade. *Cx. pipiens*.

077. Aswan Gov., Aswan (36QMV484652), 200 m; 8 Apr 1983. Large marsh to left of Aswan airport entrance, 30 m from nearest house; water permanent, stagnant, clear, color yellowish, probably slightly brackish; with mud bottom, abundant emergent reeds and *Juncus*, green algae; partial shade. *An. multicolor*, *Cx. perexiguus*, *Cx. pipiens*.

078. Aswan Gov., Aswan, Khour Abu Subeira (Hod Subeira) (36RVM885783), 50 m; 10 Apr 1983. Adults landing and biting on human, 400 m from nearest house, collection terminated early due to windy and cool conditions. 1800 to 1859 hr. - *Ae. caspius*, *Cx. pipiens*, *Cs. subochrea*; 1900 to 2000 hr. - *Cx. pipiens*.

079. El-Qahira Gov., Cairo [type locality of *Cx. antennatus* (Becker) and *Cx. longefurcatus* Becker], Ain Shams University Campus (36RUU345288), 18 m; 17 Apr 1983. Domestic area, medium-sized cement cistern drain located at corner of garden area 5 m from Chemistry Building; water semipermanent, stagnant, clear, fresh; with anaerobic pollutants, leaves and sticks, mud bottom, scarce submerged green algae; partial shade. *Cx. pipiens*, *Cs. longiareolata*.

080. El-Qahira Gov., Cairo, Ain Shams University Campus (36RUU344289), 18 m; 17 Apr 1983. Domestic area, medium-sized pit (about 1.5 m across) located 3 m from Printing Building, between building and railway; water permanent, stagnant, turbid, color yellowish, fresh; with anaerobic and other pollutants, mud bottom, scarce green algae; full sun. *Cs. longiareolata*.

081. El-Qahira Gov., Cairo, Ain Shams University Campus (36RUU344289), 18 m; 17 Apr 1983. Domestic area, small open cesspit 2 m from Printing Building, between building and site 080; water permanent, stagnant, turbid, color yellowish, fresh; with anaerobic and other pollutants, mud bottom, no vegetation; full sun. *Cx. pusillus*, *Cx. pipiens*, *Cs. longiareolata*.

082. El-Qahira Gov., Cairo, Ain Shams University Campus (36RUU344289), 18 m; 17 Apr 1983. Domestic area, medium-sized pit (about 2 x 3 m) located behind Printing Building, 4 m from building; water permanent, stagnant, turbid, fresh; with anaerobic and other pollutants, mud bottom, abundant emergent grass, water green with algal bloom; full sun. *Cx. pipiens*, *Cs. longiareolata*.

083. Port Said Gov., Port Said [type locality of *Ae. africanus* Neveu-Lemaire], entrance to el-Raswa off highway 44 (36RVV325568), 1 m; 18 Apr 1983. Domestic area, small cesspit next to building and adjacent to large ground pool without mosquitoes; water semipermanent, stagnant, clear, color yellowish, brackish; with anaerobic and other pollutants, mud bottom; partial shade. *Cx. pipiens*, *Cs. longiareolata*.

084. Port Said Gov., Port Said, military compound in Bur Fu'ad (36RVV361577), 0.5 m; 18 Apr 1983. Domestic area, large marsh dried to isolated pools, 9 m from building; water semipermanent, stagnant, clear, brackish; with anaerobic pollutants, sewage flowing into parts of marsh, mud bottom, abundant submerged

and emergent reeds, dense green algae in some pools; partial shade. *Ae. caspius*, *Cx. perexiguus*, *Cx. pipiens*.

085. Port Said Gov., Port Said, military compound in Bur Fu'ad (36RVV361577), 0.5 m; 18 Apr 1983. Domestic area, small cesspit adjacent to site 084, 3 m from building; water semipermanent, stagnant, clear, brackish; with anaerobic and other pollutants, mud bottom; partial shade. *Cx. pipiens*, *Cs. longiareolata*.

086. Port Said Gov., Port Said, about 5 km south of Customs Office on highway 44 (36RVV333544), 0.5 m; 18 Apr 1983. Domestic area, medium-sized ditch along highway, 7 m from nearest house; water semipermanent, stagnant, clear, brackish; with anaerobic pollution, mud bottom, scarce submerged and emergent grass, green algae; full sun. *Ae. caspius*, *Cx. pipiens*.

087. El-Qalyubiya Gov., El-Qash-shish, 0.5 km east of town (36RUU359563), 15 m; 20 Apr 1983. Domestic/cultivated area, old abandoned medium-sized well (sakhia) at edge of cultivated field under trees, 500 m from nearest house; water permanent, stagnant, clear, fresh; with anaerobic and other pollutants, mud bottom, some submerged green algae; partial shade. *Cx. pipiens*.

088. El-Qalyubiya Gov., Siryaqus, 0.5 km north of town on highway 3 (36RUU384429), 15 m; 10 Apr 1983. Cultivated area, small marshy depression between highway and cultivated field, 100 m from nearest house; water temporary, stagnant, clear, color orange, brackish; with mud bottom, scarce but dense emergent reeds and grass; full sun. *Ae. caspius*, *Cs. longiareolata*.

089. El-Qalyubiya Gov., Siryaqus, Ezbet Isma'il Pasha Sabri (36RUU377410), 15 m; 20 Apr 1983. Medium-sized marsh along road and Ismailia Canal (west bank), isolated pool remaining from water overflow, 25 m from nearest house; water temporary, stagnant, clear, color yellowish, brackish; with mud bottom, abundant submerged and emergent reeds and cattails (*Typha*), green algae; partial shade. *Ae. caspius*.

090. El-Giza Gov., Abu Rauwash, 1 km north of town (36RUU161267), 18 m; 21 Apr 1983. Plantation/cultivated area, medium-sized ditch, 40 m from nearest house; water temporary, stagnant, turbid, color yellowish, brackish, shallow; with anaerobic pollutants, mud and sand bottom, scarce emergent reeds; full sun. *Cs. longiareolata*.

091. El-Giza Gov., Abu Rauwash, 1.5 m north of town (36RUU159269), 18 m; 21 Apr 1983. Plantation/cultivated area, small ground pool, 25 m from nearest house; water temporary, stagnant, clear, color orange, brackish, shallow; with mud bottom, scarce emergent reeds, green algae; full sun. *Ae. caspius*.

092. El-Giza Gov., Abu Rauwash, 0.75 km north of town (36RUU165263), 18 m; 21 Apr 1983. Cultivated area; large roadside ditch, 50 m from nearest house; water semipermanent, stagnant, clear slightly brackish; with anaerobic pollutants, mud bottom, abundant submerged, floating and emergent reeds and cattails (*Typha*), green algae; partial shade. *An. tenebrosus*.

093. El-Giza Gov., Abu Rauwash, 0.5 km north of town (36RUU162262), 18 m; 21 Apr 1983. Plantation, cultivated area, medium-sized ditch under palms in orange/mango orchard, 30 m from nearest house; water semipermanent, stagnant, clear, slightly brackish; with anaerobic pollutants, mud bottom, abundant floating and emergent reeds, green algae; partial shade. *An. tenebrosus*, *Cx. perexiguus*, *Cx. pipiens*.

094. Marsa Matruh Gov., Siwa, Abu el-Leef (29 10 45N 25 30 15E), -14 m; 17 Apr 1983. Domestic/cultivated area, medium-sized irrigation ditch, 300 m from nearest house; water permanent, with slow current, clear, brackish; with organic matter (primarily animal waste) floating in dense clumps, mud bottom, some emergent grass, green algae; partial shade. *An. sergentii*, *Cx. pusillus*, *Cx. pipiens*, *Cx. theileri*.

095. Marsa Matruh Gov., Siwa, Masouse (29 10 45N 25 30 15E), -14 m; 17 Apr 1983. Domestic/cultivated area, medium-sized irrigation ditch beside road, 300 m from nearest house; water permanent, with slow current, clear, brackish; with mud bottom, large quantities of floating animal waste, some emergent grass, green algae; partial shade. *Cx. pipiens*, *Cx. theileri*.

096. Marsa Matruh Gov., Siwa, Masouse (29 10 45N 25 30 15E), -14 m; 17 Apr 1983. Domestic/cultivated area, medium-sized irrigation ditch under date palms; water permanent, with slow current, clear, brackish; with mud bottom, scarce emergent grass, green algae; partial shade. *Ae. caspius*, *Cx. pipiens*, *Cs. subochrea*.

097. Marsa Matruh Gov., Siwa, Masouse (29 10 45N 25 30 15E), -14 m; 17 Apr 1983. Adults landing and biting on human, same site as 095. 1800 to 1859 hr. - *Ae. caspius*, *Ae. detritus*; 1900 to 1959 hr. - *An. algeriensis*, *An. segentii*, *Ae. caspius*, *Ae. detritus*, *Cx. pipiens*, *Cx. theileri*.

098. Marsa Matruh Gov., Siwa, 'Ain Bundi (29 15 45N 25 18 50E), -14 m; 18 Apr 1983. Domestic/cultivated area, medium-sized ground pool, 350 m from nearest house; water permanent, stagnant, clear, brackish; with mud and plant matter on bottom, abundant emergent grass, floating algae; partial shade. *Ae. caspius*, *Cx. pusillus*, *Cx. pipiens*, *Cs. longiareolata*, *Cs. subochrea*.

099. Marsa Matruh Gov., Siwa, 'Ain Bundi (29 15 45N 25 18 50E), -14 m; 18 Apr 1983. Cultivated area, medium-sized ground pool beside irrigation canal, 500 m from nearest house; water semipermanent, stagnant, clear, brackish; with mud and plant matter on bottom, some clumps of emergent reeds, floating algae; full sun. *An. multicolor*.

100. Marsa Matruh Gov., Siwa, 'Ain Bundi (29 15 45N 25 18 50E), -14 m; 18 Apr 1983. Cultivated area, small ground pool beside dirt road, adjacent to large well; water semipermanent, stagnant, clear, brackish; with mud and plant matter on bottom, some emergent grass and reeds, floating clumps of green algae; partial shade. *Cx. pipiens*, *Cx. theileri*, *Cs. subochrea*.

101. No collection.

102. Marsa Matruh Gov., Siwa, 'Ain Bundi (29 15 45N 25 18 50E), -15 m; 18 Apr 1983. Small irrigation ditch between olive grove and margin of salt lake; water temporary, stagnant, clear, brackish, shallow; with mud bottom, scarce emergent grass; full sun. *Ae. caspius*, *Cs. longiareolata*.

103. Marsa Matruh Gov., Siwa, Birket el Maraqui (29 15 45N 25 19 00E), -16 m; 18 Apr 1983. Small pockets and pools in dirt and mud on shore of large salt lake (Birket el Maraqui) near olive grove; water temporary, stagnant, clear, brackish, very shallow; shore with some grass and clumps of herbs; full sun. *An. multicolor*.

104. Marsa Matruh Gov., Siwa, Mshendit (29 13 20N 25 24 50E), -16 m; 18 Apr 1983. Domestic/cultivated area, more or less isolated pools in small irrigation ditch beside road; water temporary, stagnant, clear, brackish, shallow; with mud bottom, scarce grass; full sun. *Cx. theileri*, *Cs. longiareolata*.

105. Marsa Matruh, Siwa, 'Ain Bundi (29 15 45N 25 18 50E), -14 m; 18 Apr 1983. Adults landing and biting on human 10-20 m from site 098. 1900 to 1959 hr. - *An. algeriensis*, *An. sergentii*, *Ae. detritus*, *Cs. subochrea*.

106. Marsa Matruh Gov., Siwa, Aghurmi (29 12 30N 25 32 30E), -14 m; 19 Apr 1983. Domestic area, medium-sized ground pool beside road; water semipermanent, stagnant, clear, brackish; with mud and plant matter on bottom, some dense patches of floating moss, emergent grass, algae; partial shade. *An. sergentii*, *Cx. pipiens*, *Cx. theileri*.

107. No collection.

108. Marsa Matruh Gov., Siwa, Aghurmi (29 12 30N 25 32 30E), -14 m; 19 Apr 1983. Domestic area, medium-sized ground pool beside road; water permanent, stagnant, clear, brackish, deep; with mud and plant matter on bottom, scarce emergent grass, algae; partial shade. *An. sergentii*, *Cx. theileri*.

109. Marsa Matruh Gov., Siwa, Aghurmi (29 12 30N 25 32 30E), -14 m; 19 Apr 1983. Domestic area, small ground pool beside road (one in series of more or less interconnected pools), 100 m from nearest house; water temporary, stagnant, clear, brackish, shallow; with mud bottom, scarce submerged grasslike plants; full sun. Larval collection only, all *Aedes*.

110. Marsa Matruh Gov., Siwa, Aghurmi (29 12 30N 25 32 30E), -14 m; 19 Apr 1983. Adults landing and biting on human very near site 108, 100 m from nearest house. 1830 to 1859 hr. - *Ae. caspius*, *Ae. detritus*; 1900 to 1959 hr. - *An. algeriensis*, *An. sergentii*, *Ae. caspius*, *Ae. detritus*, *Cs. subochrea*.

111. Marsa Matruh Gov., Siwa, Qaret Umm el Sagher (El Gara) (29 22N 25 53E), 4 m; 19 Apr 1983. Domestic area, small seepage area, 30 m from nearest house; water permanent, stagnant, clear, brackish; with sand bottom, scarce emergent grass, some submerged green algae; partial shade. *Cs. longiareolata*.

112. Marsa Matruh Gov., Siwa, Qaret Umm el Sagher (El Gara) (29 22N 25 53E), 4 m; 19 Apr 1983. Cultivated area, medium-sized irrigation ditch fed by spring, 100 m from nearest house; water permanent, with moderate current, clear, brackish; with sand bottom, some emergent grass, submerged and floating masses of green algae; full sun. *An. sergentii*.
113. Marsa Matruh Gov., Siwa, northwest of Ain Qureishit (29 14 30N 25 40 30E), -14 m; 10 Apr 1983. Medium-sized ground pool along road; water semipermanent, stagnant, clear, brackish; with mud and sand on bottom, some clumps of emergent reeds and sparse grass; full sun. *An. multicolor*.
114. Marsa Matruh Gov., Siwa, Ain Qureishit (29 12 20N 25 42 45E), -13 m; 20 Apr 1983. Margin of medium-sized stream fed by spring from which collection 115 was made; water permanent, with moderate current, clear, brackish; with mud bottom, abundant floating and emergent grass, green algae; deep shade. *An. sergentii*.
115. Marsa Matruh Gov., Siwa, Ain Qureishit (29 12 20N 25 42 45E), -13 m; 20 Apr 1983. Margin of large spring; water permanent, stagnant, clear, brackish, very cool; with mud, rock and plant matter on bottom, some partially submerged and emergent grass (some dead), floating green algae; full sun. *An. algeriensis*.
116. Marsa Matruh Gov., Siwa, Ain Qureishit (29 12 20N 25 42 45E), -13 m; 20 Apr 1983. Adults biting human while collection 114 was being made. 1400 hr. - *An. algeriensis*, *Ae. caspius*, *Ae. detritus*.
117. El-Giza Gov., Saqqara, 1.5 km north of town at entrance to Zoser's Pyramid (36RUU285053), 18 m; 22 Apr 1983. Plantation/cultivated area, small isolated depression in drying marsh at side of road, 90 m from nearest house; water temporary, stagnant, clear, color yellowish, brackish; with mud bottom, abundant submerged and emergent reeds, green algae; partial shade. *Cx. pipiens*, *Cs. longiareolata*, *Ur. unguiculata*.
118. El-Giza Gov., Saqqara, 1.6 km north of town at entrance to Zoser's Pyramid (36RUU287055), 18 m; 22 Apr 1983. Plantation/cultivated area, medium-sized marshy depression at edge of desert, 30 m from nearest house; water semipermanent, stagnant, clear, color deep orange, brackish; with mud bottom, dense reeds, some cat-tails (*Typha*), abundant green algae; partial shade. *Ae. caspius*, *Cx. perexiguus*, *Cx. pipiens*, *Cx. theileri*, *Cs. longiareolata*, *Ur. unguiculata*.
119. El-Giza Gov., Saqqara, 1 km from entrance to Zoser's Pyramid (36RUU290054), 18 m; 22 Apr 1983. Plantation, small ditch at edge of cultivated field, 100 m from nearest house; water temporary, stagnant, clear, brackish, drying up; with mud bottom, scarce emergent grass; partial shade. *Ae. caspius*.
120. El-Giza Gov., Saqqara, 1.6 km northeast of town beside road into Zoser's Pyramid (36RUU297053), 18 m; 22 Apr 1983. Domestic area, medium-sized cement/stone ditch, 10 m from nearest house; water temporary, stagnant, clear, slightly brackish; with anaerobic pollutants, mud bottom, abundant emergent grass and reeds,

floating plants like *Lemna* and *Lemnella*, green algae; partial shade. *Cx. perexiguus*, *Cx. pipiens*.

121. El-Buhayrah Gov., Wadi Natrun [type locality of *An. impunctus* Doenitz and *An. tenebrosus* Doentiz], just south of Bir Hooker (36RTU455632), -10 m; 23 Apr 1983. Domestic area, medium-sized ground pool beside dirt road, 8 m from nearest house; water semipermanent, stagnant, clear, color yellowish, brackish, shallow; with anaerobic pollutants, mud bottom, some emergent spike rushes (*Juncus*), submerged green algae; full sun. *Cx. pipiens*, *Cx. theileri*, *Cs. longiareolata*.

122. El-Buhayrah Gov., Wadi Natrun, just south of Bir Hooker (36RTU455632), -10 m; 23 Apr 1983. Domestic area, medium-sized marshy depression beside road, 15 m from nearest house; water semipermanent, stagnant, clear, color yellowish, brackish; with anaerobic pollutants, mud bottom, some emergent spike rushes (*Juncus*) and cattails (*Typha*), submerged green algae; full sun. *Cx. theileri*.

123. El-Buhayrah Gov., Wadi Natrun, just south of Bir Hooker (36RTU456630), -13 m; 23 Apr 1983. Domestic area, very small ground pool near road, 40 m from nearest house; water temporary, stagnant, clear, salty, very shallow; with mud bottom, no vegetation, surrounding soil encrusted with salt; full sun. *An. multicolor* (no collection).

124. El-Buhayrah Gov., Wadi Natrun, 1 km southeast of Bir Hooker (36RTU464623), -10 m; 23 Apr 1983. Clearing in cultivated area, small ground pool under Australian pine, 70 m from nearest house; water temporary, stagnant, turbid, color reddish, brackish, shallow; with mud bottom, scarce dead leaves; partial shade. Larvae only - *Ae. caspius*.

125. El-Buhayrah Gov., Wadi Natrun, 1 km southeast of Bir Hooker (36RTU464634), -10 m; 23 Apr 1983. Cultivated area, medium-sized ditch, 80 m from nearest house; water semipermanent, stagnant, clear, fresh; with mud bottom, some emergent reeds (*Typha*), mats of green algae; partial shade. *Cx. theileri*.

126. El-Buhayrah Gov., Wadi Natrun, 0.2 km southeast of Ezbet Kafr Dawud (36RTU467617), -18 m; 23 Apr 1983. Grazing area, small ground pool about 10 m from Lake Ruzunia, 60 m from nearest house; water semipermanent, stagnant, clear, color yellowish, salty; with mud bottom, scarce emergent grass, green algae; full sun. *Cx. pipiens*, *Cx. theileri*.

127. El-Buhayrah Gov., Wadi Natrun, 0.2 km southeast of Ezbet Kafr Dawud (36RTU467617), -18 to -20 m; 23 Apr 1983. Grazing area, small ground pool about 15 m from Lake Ruzunia, 70 m from nearest house; water semipermanent, stagnant, clear, salty; with mud bottom, scarce grass, green algae; full sun. *An. multicolor*, *Cx. theileri*.

128. El-Buhayrah Gov., Wadi Natrun, 0.2 km southeast of Ezbet Kafr Dawud (36RTU467617), -18 to -20 m; 23 Apr 1983. Grazing area, small ground pool about 15 m from Lake Ruzunia, 70 m from nearest house; water semipermanent, stagnant, clear, salty; with mud bottom, sparse emergent grass and spike rushes (*Juncus* sp.), submerged green algae; full sun. *An. multicolor*, *An. pharoensis*, *Cx. theileri*.

129. El-Buhayrah Gov., Wadi Natrun, 0.2 km southeast of Ezbet Kafr Dawud (36RTU467617), -18 to -20 m; 23 Apr 1983. Grazing area, small ground pool about 20 m from Lake Ruzunia, 15 m from nearest house; water permanent, stagnant, clear, salty; with mud bottom, scarce emergent grass, thick green algal mats; full sun. *An. multicolor*, *Cx. theileri*.

130. El-Qahira (Cairo) Gov., Helwan, Wadi Hof [type locality of *Cx. adairi* Kirkpatrick], 5 km northeast of Royal Observatory (36RUU442088), 180 m; 24 Apr 1983. Large rock pool below waterfall (during rainy season); water semipermanent, stagnant, turbid, color whitish, fresh; with mud and sand bottom, no vegetation except for a small tamarisk tree; partial shade. *Cs. longiareolata*.

131. El-Qahira (Cairo) Gov., Helwan, Wadi Hof, 5 km northeast of Royal Observatory (36RUU442088), 180 m; 24 Apr 1983. Adults resting in holes and cracks in rocks of cliff above and around site 130. *Cs. longiareolata*.

132. El-Isma'iliya Gov., Abu Khalifa, 21 km north of Isma'iliya [type locality of *An. subtilis* Pressat] on highway 44 (36RVV289021), 0.5 m; 27 Apr 1983. Interior of large marsh, 5 m from shed; water semipermanent, stagnant, clear, fresh; with mud bottom, abundant emergent reeds and cattails, some patches of green and yellow-green algae; partial shade. *An. tenebrosus*, *Cx. antennatus*, *Cx. pipiens*, *Ur. unguiculata*.

133. El-Isma'iliya Gov., Abu Khalifa, 21 km north of Isma'iliya on highway 44 (36RVV289021), 0.5 m; 27 Apr 1983. Edge of large marsh, 2 m from shed; water semipermanent, stagnant, clear, fresh; with anaerobic pollutants, mud bottom, abundant submerged and emergent reeds and cattails, green algae; partial shade. *Ae. caspius*, *Cx. antennatus*, *Cx. pipiens*, *Ur. unguiculata*.

134. El-Isma'iliya Gov., Abu Khalifa, 20.5 km north of Isma'iliya on highway 44 (36RVV290014), 0.5 m; 27 Apr 1983. Cultivated area, edge of medium-sized marsh, 50 m from nearest house; water semipermanent, stagnant, clear, fresh; with mud bottom, abundant submerged and emergent grass, reeds and cattails, green and yellow-green algae; partial shade. *An. tenebrosus*, *Cx. antennatus*, *Cx. pipiens*.

135. No collection.

136. El-Isma'iliya Gov., Abu Khalifa, 20.5 km north of Isma'iliya on highway 44 (36RVV291014), 0.5 m; 27 Apr 1983. Small ground pool at shallow edge of marsh, 80 m from nearest house; water temporary, stagnant, clear, fresh; with mud bottom, some emergent reeds and cattails, green algae; full sun. *Cx. antennatus*, *Cx. pipiens*.

137. El-Isma'iliya Gov., Abu Khalifa, 20 km north of Isma'iliya on highway 44 (36RVV291006), 0.5 m; 27 Apr 1983. Medium-sized ditch beside road, 200 m from nearest house; water semipermanent, stagnant, clear, color yellowish, brackish; with mud bottom, some submerged and emergent grass and rushes (*Juncus* sp.); tamarisk trees, green algae; partial shade. *Cx. pusillus*.

138. El-Isma'iliya Gov., Abu Khalifa, 11 km north of Isma'iliya on highway 44 (36RVV301958), 2 m; 27 Apr 1983. Grazing area, small hole in middle of large marsh, 100 m from nearest house; water semipermanent, stagnant, clear, color yellowish, fresh; with mud bottom, some submerged and emergent reeds and cattails (*Typha*), floating green and yellow-green algae; partial shade. *An. tenebrosus*, *Cx. perexiguus*, *Cx. poicilipes*.

139. El-Isma'iliya Gov., Abu Khalifa, 11 km north of Isma'iliya on highway 44 (36RVV301958), 2 m; 27 Apr 1983. Large ground pool, 10 m from nearest house; water semipermanent, stagnant, clear, color yellowish, fresh; with mud bottom, scarce submerged and emergent spike rushes (*Juncus* sp.), green algae; full sun. *An. pharoensis*, *Cx. pusillus*, *Cx. perexiguus*.

140. El-Isma'iliya Gov., Nifisha, 3.5 km northwest of town near aluminum plant (36RVU232839), 4 m; 27 Apr 1983. Small ground pool, 5 m from nearest house; water temporary, stagnant, clear, color yellowish, brackish; with anaerobic and other pollutants, mud bottom, scarce emergent rushes (*Juncus* sp.); full sun. *Cx. pusillus*, *Cx. pipiens*.

141. El-Isma'iliya Gov., Nifisha, 3 km west of town (36RVU232821), 8 m; 27 Apr 1983. Medium-sized marsh beside road, 50 m from nearest house; water semipermanent, stagnant, clear, fresh; with mud bottom, abundant submerged and emergent rushes and cattails (*Typha* sp.), green and yellow-green algae; partial shade. *An. tenebrosus*.

142. El-Isma'iliya Gov., Nifisha, 3 km west of town (36RVU232821), 8 m; 27 Apr 1983. Small ground pool beside road, 50 m from nearest house; water temporary, stagnant, clear, color yellowish, fresh; with mud bottom, scarce emergent cattails (*Typha* sp.), green algae; full sun. *Cx. antennatus*, *Cx. pipiens*.

143. El-Bahr El-Ahmar (Red Sea) Gov., Zafarana, St. Paul's Monastery (Deir el-Qaddis Paula) (36RVS562913), 360 m; 29 Apr 1983. Domestic area, edge of large enclosed cement cistern next to house; water permanent, stagnant, clear, slightly brackish; deep shade. *Cs. longiareolata*.

144. El-Bahr El-Ahmar (Red Sea) Gov., Zafarana, about 300 m west of St. Paul's Monastery (Deir el-Qaddis Paula) (36RVS562913), 360 m; 29 Apr 1983. Medium-sized spring (camel and livestock watering hole), 10 m from nearest house; water permanent, with slow current, clear, slightly brackish; with mud bottom, scarce emergent reeds, green algae; deep shade. *Cs. longiareolata* (2nd instars only).

145. El-Bahr El-Ahmar (Red Sea) Gov., Ras Shukheir, Great Salt Swamp 19 km south of Ras Gharib (36RWS188186), 10 m; 29 Apr 1983. Small ground pool at edge of swamp (salt marsh), 10 km from nearest house; water temporary, stagnant, clear, color yellowish, salty; with mud bottom, scarce submerged yellow-green algae; partial shade. *Ae. detritus*.

146. El-Bahr El-Ahmar (Red Sea) Gov., Ras Shukheir, 5 km west of town on oil field road (36RWS219128), 10 m; 30 Apr 1983. Small ground pools and holes in in-

terior of swamp, 5 km from nearest house; water temporary, stagnant, clear, salty; with mud, sand and plant matter on bottom, abundant submerged green and yellow-green algae; full sun. *An. n. sp.*

147. El-Bahr El-Ahmar (Red Sea) Gov., Zafarana, St. Antonious Monastery (Deir el-Qaddis Antonius) (36RVT3500), 400 m; 30 Apr 1983. Small seepage hole, 1 km from nearest house; water semipermanent, stagnant, clear, slightly brackish; with mud and sand bottom, abundant emergent cattails (*Typha* sp.); deep shade. *Cx. pipiens*, *Cs. longiareolata*.

148. El-Suweis Gov., Suez [area of type locality of *An. multicolor* Cambouliu] (36RVU5920), 2 m; 1 May 1983. Domestic area, small vertical pipe in street in front of Suez Canal Company, 10 m from nearest house; water temporary, stagnant, clear, with yellowish color, brackish; with anaerobic pollution, mud bottom, no vegetation; partial shade. *Cx. pipiens*.

149. El-Suweis Gov., Suez (36RVU5920), 2 m; 1 May 1983. Domestic area, shallow pools in medium-sized ditch in railroad yard, 5 m from nearest house; water semipermanent, stagnant, clear, color yellowish, slightly brackish; with anaerobic and other pollutants (recently sprayed with kerosene or diesel fuel), mud bottom, abundant emergent reeds, green algae; partial shade. *Cx. pipiens*.

150. Kafr el-Sheikh Gov., Kafr el-Sheikh, 1.5 km northwest of town on highway 7 (36RTV027449), 4 m; 2 May 1983. Cultivated area, interior of large marsh, 50 m from nearest house; water semipermanent, stagnant, clear, color yellowish, fresh; with mud bottom, abundant emergent grass, few reeds, green and yellow-green algae; partial shade. *An. tenebrosus*, *Cx. antennatus*.

151. Kafr el-Sheikh Gov., Mahallet el-Qasab, 0.5 km north of El-Hudud on highway 7 (36RTV984485), 4 m; 2 May 1983. Grazing/cultivated area, cattle/buffalo footprints along edge of ditch, 30 m from nearest house; water temporary, stagnant, turbid (muddy), fresh; with anaerobic pollutants, mud bottom, no vegetation; partial shade. *Cx. antennatus*.

152. Kafr el-Sheikh Gov., Mahallet el-Qasab, 0.4 km north of El-Hudud on highway 7 (36RTV984484), 4 m; 2 May 1983. Grazing area, small marsh, 5 m from nearest house; water semipermanent, stagnant, clear, fresh, shallow; with anaerobic pollutants, mud bottom, abundant emergent grass and reeds, green algae; full sun. *An. tenebrosus*, *Cx. antennatus*.

153. El-Fayyum Gov., El-Sa'idiya, about 100 m south of Kirket Qarun (36RTT876626), -42 m; 3 May 1983. Grazing area, buffalo footprints in large marsh, 200 m from nearest house; water temporary, stagnant, clear, color yellowish, brackish; with anaerobic pollutants, mud bottom, no vegetation; full sun. *Ur. unguiculata*.

154. El-Fayyum Gov., El-Sa'idya, about 150 m southeast of Birket Qarun (36RTT885631), -42 m; 3 May 1983. Grazing/cultivated area, small drying ditch, 100 m from nearest house; water temporary, stagnant, clear, color yellowish, brackish; with anaerobic pollutants, mud bottom, scarce submerged grass; full sun. *Ae. caspius*.

155. El-Fayyum Gov., El-Sa'idiya, about 200 m southeast of Birket Qarun (36RTT885631), -42 m; 3 May 1983. Grazing/cultivated area, small drying ditch, 100 m from nearest house; water temporary, stagnant, clear, color yellowish, brackish; with mud bottom, scarce submerged dead grass; full sun. *Ae. caspius*.

156. El-Fayyum Gov., El-Sa'idiya, about 200 m southeast of Birket Qarun (36RTT885631), -42 m; 3 May 1983. Grazing/cultivated area, small drying ditch, 80 m from nearest house; water temporary, stagnant, clear, color yellowish, brackish; with anaerobic pollutants, mud bottom, no vegetation; full sun. *Ae. caspius*.

157. El-Fayyum Gov., Sinnuris, Ezbet Muftah Abu Zeid el-Zu'l (36RTT918626), -17 m; 3 May 1983. Domestic/cultivated area, small drying ground pool, 20 m from nearest house; water temporary, stagnant, clear, color yellowish, brackish; with mud bottom, no vegetation; full sun. *Ae. caspius*.

158. El-Fayyum Gov., Biyahmu, across railroad tracks next to brick factory (36RTT916511), 18 m; 3 May 1983. Large marsh, 25 m from nearest house; water permanent, stagnant, clear, color yellowish, brackish; with mud bottom, abundant submerged and emergent grass and rushes, green and yellow-green algae; partial shade. *An. multicolor*, *Cx. pusillus*.

159. El-Fayyum Gov., Biyahmu, behind train station (36RTT917507), 18 m; 3 May 1983. Domestic area, small pool beside large cement cesspit, 10 m from train station; water semipermanent, stagnant, turbid, color black, brackish; with anaerobic and other pollutants, mud plant and animal matter on bottom, no vegetation; full sun. *Cx. pipiens*.

160. El-Fayyum Gov., Sinnuris, Abhit el-Hagar (36RTT905568), 5 m; 3 May 1983. Domestic area, small pools in drying marsh, 5 m from nearest house; water temporary, stagnant, turbid, color brown, brackish; with anaerobic and other pollutants, mud and animal matter on bottom, scarce emergent grass and rushes, green algae; full sun. *An. multicolor*, *Cx. pusillus*, *Cx. antennatus*.

161. El-Fayyum Gov., Sinnuris, Abhit el-Hagar (36RTT905568), 6 m; 3 May 1983. Domestic area, small drying marsh, 3 m from nearest house; water semipermanent, stagnant, clear, brackish; with anaerobic and other pollutants, mud, plant and animal matter on bottom, some submerged and emergent grass, rushes and cattails, green and yellow-green algae; partial shade. *An. multicolor*, *Ae. caspius*, *Cx. antennatus*, *Cx. perexiguus*, *Cx. pipiens*, *Ur. unguiculata*.

162. El-Fayyum Gov., Sinnuris, Abhit el-Hagar (36RTT905568), 6 m; 3 May 1983. Same site as 161 except open area of marsh with scarce emergent grass only. *An. multicolor*, *An. pharoensis*, *An. sergentii*, *Cx. pusillus*, *Cx. antennatus*, *Cx. perexiguus*, *Cx. pipiens*.

163. El-Fayyum Gov., Sinnuris, Abhit el-Hagar (36RTT905568), 5 m; 3 May 1983. Domestic area, medium-sized pond at edge of dike, 3 m from nearest house; water semipermanent, stagnant, turbid, color gray, brackish; with anaerobic and organic

pollutants, mud, plant and animal matter on bottom, scarce green algae; partial shade. *An. sergentii*, *Cx. pusillus*, *Cx. antennatus*, *Cx. perexiguus*, *Cx. theileri*, *Ur. unguiculata*.

164. El-Fayyum Gov., Sinnuris, Abhit el-Hagar (36RTT905569), 0 m; 3 May 1983. Domestic area, small marsh, 10 m from nearest house; water semipermanent, stagnant, clear, color yellow, brackish; with mud bottom, abundant emergent rushes, green and yellow-green algae; partial shade. *An. multicolor*, *An. sergentii*, *Cx. antennatus*, *Cx. perexiguus*, *Ur. unguiculata*.

165. El-Fayyum Gov., Minsh'et Halfa, just right of road into town (36RTT826398), 10 m; 3 May 1983. Cultivated area, small ground pool, 40 m from nearest house; water temporary, stagnant, clear, color yellow, brackish; with mud bottom, scarce emergent grass, green and yellow-green algae. *An. multicolor*, *Ae. caspius*, *Cx. pusillus*.

166. El-Fayyum Gov., El-Nazla, east of river (no name) from town (36RTT724453), -5 m; 3 May 1983. Small seepage pool on hillside, 300 m from nearest house; water semipermanent, with slow current, clear, brackish; with mud and sand bottom, some submerged grass and herbaceous (?) plants, green algae; partial shade. *An. multicolor*, *Ae. caspius*, *Cx. pusillus*, *Cx. antennatus*, *Cx. pipiens*, *Cs. longiareolata*, *Ur. unguiculata*.

167. El-Fayyum Gov., El-Nazla, east of river (no name) from town (36RTT723454), -10 m; 3 May 1983. Small seepage pool on hillside, 250 m from nearest house; water semipermanent, with slow current, clear, brackish; with mud and sand bottom, scarce emergent grass, green algae; partial shade. *An. multicolor*, *Ae. caspius*.

168. El-Fayyum Gov., Tubhar, 1 km west of town (36RTT761450), 12 m; 3 May 1983. Adults biting donkey, 50 m from nearest house. 1930 to 1959 hr. - *Ae. caspius*, *Cx. antennatus*.

169. El-Fayyum Gov., Tubhar, 1 km west of town (36RTT761448), 12 m; 3 May 1983. Adults biting human in orchard south of road to El-Nazla, 60 m from nearest house. 1900 to 1959 hr. - *Cx. pipiens*; 2000 to 2059 hr. - *Cx. antennatus*, *Cx. pipiens*; 2100 to 2159 hr. - *Cx. pipiens*.

170. El-Giza Gov., Saqqara, 1.6 km north of town at entrance to Zoser's Pyramid (36RUU287055), 19 m; 5 May 1983. Adults biting human 5 m away from site 118, 30 m from nearest house. 1940 to 1959 hr. - *Ae. caspius*, *Cx. pipiens*; 2000 to 2059 hr. - *Cx. pipiens*; 2100 to 2159 hr. - *Cx. pipiens*.

171. El-Buhayrah Gov., Kafr el-Dauwar [type locality of *Ae. willcocksii* Theobald] (36RTV266474), 1 m; 6 May 1983. Domestic area, medium-sized pond, 25 m from nearest house; water permanent, stagnant, clear, fresh; with anaerobic and organic pollutants, mud and plant matter on bottom, some emergent grass; full sun. *Cx. pipiens*.

172. El-Buhayrah Gov., Kafr el-Dauwar, about 5 km northwest of town on grounds of Beida Dyers Company (36RTV216528), 0 m; 6 May 1983. Domestic area, large drying marsh; water semipermanent, stagnant, clear, color yellow, slightly brack-

ish; with mud bottom, abundant floating green algae and herbaceous plants, abundant emergent grass, rushes and reeds, some scattered small tamarisk trees; full sun. *Ur. unguiculata*.

173. El-Buhayrah Gov., Rosetta (Rashid) [type locality of *Cx. molestus* Forskal], about 50 m from Nile River (36RTV551778), 1 m; 6 May 1983. Domestic area, small ground pool 2-3 m from open cesspit, located between buildings and homes; water permanent, stagnant, clear, fresh; with organic pollutants, mud, decaying plant matter and human waste (?) on bottom, abundant emergent grass; partial shade. *Cx. pipiens*, *Cs. longiareolata*.

174. El-Buhayrah Gov., Alexandria, 1 km south of Victoria College (36RQQ843604), 1 m; 6 May 1983. Domestic area, small ground pool 20 m from street, beside footing of apartment building; water semipermanent, stagnant, clear, fresh; with mud and plant matter on bottom, abundant emergent grass; partial shade. *Cx. pipiens*, *Cs. longiareolata*.

175. El-Buhayrah Gov., Wadi Natrun, 0.2 km southeast of Ezbet Kafr Dawud (36RTU467617), -18 to -20 m; 6 May 1983. Grazing area, small ground pool, 60 m from nearest house; water semipermanent, stagnant, clear, color yellow, salty; with mud bottom, scarce emergent grass; full sun. *Cx. theileri*.

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Fig. 1

