

## Emergency Transboundary Outbreak Pest (ETOP) update for April 2007

### Summary:

In **Sudan**, intensive survey and control operations continued along the Red sea coast from Eritrean border to Suakin, Tokar Delta and River Nile State and more than 37,675 ha were surveyed and close to 8,000 ha were sprayed in April. Ground and aerial control operations treated close to 3,230 ha against late instar hoppers and gregarious immature adults along the Red Sea coasts in **Eritrea** from 1-20 in April. Survey and control operations were carried out in eastern **Ethiopia** bordering Djibouti and northern Somalia where four swarms that are believed to have originated in northwestern Somalia were detected and controlled on some 295 ha during the third dekad of April. Swarms and hoppers were also detected in the central Red Sea coast and the spring breeding areas in the interior of **Saudi Arabia** and controlled on some 35,000 ha during this period. A small, mature swarm was controlled on 50 ha in the western coastal areas near Karachi in **Pakistan**. The situation in the western region remained calm during this period. Hoppers and adult Migratory locusts were detected along river valleys in the major grain producing districts of **East Timor** and in the adjacent areas in **West Timor**.

### Central Region:

Adult locusts that came from the Red Sea coasts of Sudan, northern Eritrea and Saudi Arabia were reported in Adros (190238N/362922E), Warmabert (185500N/362117E), Korkrieb (84801N/360034E), Wadiariab (184052N/354000E), the Nile Valley between Dongola and Atbara in **Sudan**. Control operations were carried out against

immature and mature gregarious and scattered low to medium density adults and hopper bands in the first half of April. A third generation hatching resulted in band and group formations in the Tokar Delta areas during the second half. Some adults moved west into cropping areas in the River Nile State in Sudan. More than 37,670 ha were surveyed and close to 8,000 ha were sprayed in April by aerial and ground means. The summer breeding areas in Sudan remained free of locusts during this period.

Breeding was reported in the southern Red Sea coast of **Egypt** between Halaib and the Sudanese border.

Ground and aerial control operations continued against late instar hoppers and gregarious immature adults along the extreme northern coastal areas of **Eritrea**, in Karura plain, Mahmimet, Wedi-Medini, Enjahat and Hamel-Ketin river bed. Close to 3,230 ha were sprayed by MoA/Eritrea and the Desert Locust Control Organization for Eastern Africa (DLCO-EA) DLCO-EA in these areas through the second dekad of April (more than 36,000 ha were treated in March).



hoppers and fledglings seen in Eritrea in mid March, photo FAO.

Four small *allochthonous* swarms each measuring about 200-250 ha were first confirmed on April 6 in eastern Ethiopia bordering Djibouti and northwestern Somalia (**NWS**). It is believed that they

came from **NWS** and are perhaps part of the same swarm that local inhabitants described it as *"large and covering thousands of hectares"* on March 23rd. On April 21st, a small, copulating and laying swarm was controlled on 35 ha in Harawa in Shinile Zone, eastern **Ethiopia**. Another swarm was detected in Elbahay around the same time but soon disappeared into the rocky hills of eastern Ethiopia. From 25-28 April, DLCO-EA and MoA staff treated a total of 251 ha in Harawa, Deraas, Endeyes and Elbahay in eastern **Ethiopia** by aerial and ground means (a DLCO-EA spray aircraft that was to be deployed to **NWS** was rerouted to eastern Ethiopia for survey and control operations and USAID/OFDA augmented the deployment of the DLCO-EA aircraft. As a result of heavy rains that fell in mid April in these areas ecological conditions have improved and egg laying has occurred over some 6.5 sq. km. Hatching will start soon and swarms could begin forming at the onset of the summer rains.

The locust situation improved in **NWS** over the past weeks. Only some scattered adults, a small group and a mature swarm were present east of Berbera near the coast up to mid April. The swarms that were detected earlier in the month moved to **Djibouti, northern Somalia, Yemen** and **Ethiopia** where they began laying. No locusts were detected in **NWS** during surveys carried out thereafter and only a few adults moved to the northern highlands near the Ethiopian border. Ecological conditions have improved here as a result of rains that fell in April and laying may have occurred and hatching will likely commence soon.

Two small mature swarms were reported laying eggs on 1-2 April on the Red Sea coast about 230 km south of Jeddah, **Saudi Arabia**. Another swarm was reported on the 5th. Ground and

aerial control operations continued throughout April and treated close to 35,000 ha in the central Red Sea coast and in the spring breeding areas in the interior of **Saudi Arabia** where swarms that migrated from the coastal areas have begun laying eggs. Hatching and band formation could take place in May, followed by fledging and swarm formation in June. If left unabated, swarms could begin crossing the Red Sea soon after and reach the interior of **Sudan** where they could start breeding at the onset of the summer rains. Some swarms could also move south into Yemen and breed. A mature swarm from **NWS** reached **Yemen** and began laying eggs on the coast in mid April. Hatching is expected to follow.

#### Eastern Region:

Although small-scale breeding may have commenced in a few places in **northern Oman**, southeast **Iran** and **western Pakistan** no reports were received from the eastern region during the first dekad of April. Ecological conditions improved in areas extending from northern **Oman** to Baluchistan in southeast **Iran** and western **Pakistan** were widespread rain fell from 17-20 March. A small, mature swarm was controlled in 50 ha on the western coastal areas near Karachi, **Pakistan**. Solitary adult locusts and small-scale breeding were detected in the interior of the country during a joint survey carried out with **Iran**.

#### Western region

The situation in the western region outbreak areas remained calm in April. Only a few isolated solitary mature adult locusts were seen in southern **Morocco**, western **Algeria** and northwestern **Mauritania**. [Six] isolated solitary adults were seen during surveys carried out

west of Ghat, **Libya**. No locusts were reported from Mali, Niger, Chad, or Tunisia. Significant developments are not expected in this region in the coming several weeks.

### Migratory locust in East and West Timor

Mid to late instar hoppers of migratory locust were detected along river valleys in two of the main grain producing districts of **East Timor (Timor Leste)** (see photos by the Australian Plague Locust Commission). Small swarms composed of immature adult locusts were first seen in **E. Timor** and a similar situation was reported in **West Timor** (Indonesia) infestation straddling a politically sensitive border area. More than 30 hopper bands ranging from 50-300 meters long and 10 meters deep were detected in pastures in **E. Timor** in March and continued into April. The locusts caused damage to maize crops and threaten rice plants that were already affected by drought. The invasion has come at a very sensitive time - the run-off presidential election is planned for early May.



locusts basking in morning sun, photo: APLC

FAO's assistance package for spray operations in **E. Timor**, with funds from CERF, is expected to begin sometime in May. As most of the infested areas are in close proximity to important waterways, a decision was made to use **Green Guard** (a

*metarhizium*-based, environmentally friendly biopesticide, produced in Australia) to control the locusts (**E Timor** gets most of its drinking water from rivers that also drain directly in to the sea).

Ground-based spot treatments with conventional pesticides will likely be effected to protect crops. Another FAO locust expert will be dispatched to **West Timor** to assess the situation and assist MoA. **It is important that a proactive stance is maintained to avoid a reinvasion by locusts coming from W. Timor.**



hoppers, brown blotch, feeding on rice plants, photo: APLC

### Tree locusts

A **tree locust (*Anacridium* spp.)** invasion that was first reported in February in Turkana district in Kenya continued defoliating tree species which is the main source of feed for livestock in these semi-arid areas. Control operations were carried out by the Plant Protection Services Branch of the MoA and the DLCO-EA using fipronil and chlorpyrifos. A similar invasion was detected and controlled on **2,000 ha** on acacia trees in western **Yemen**. The GoY, through the Ministry of Agriculture and Irrigation, has approached U.S. Mission in Sana'a for assistance to strengthen its capacity to

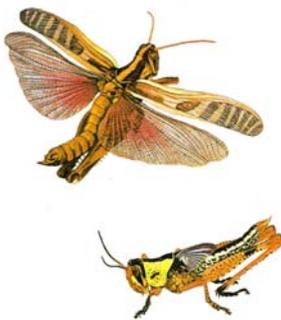
prevent and mitigate any locust threats from the sub-regions.



(source: USAID)

**Red Locust**

A late received report indicated that more than 134 small swarms and several groups of adult locusts were controlled on 4,090 ha in the Iku-Katavi plains, South Rukwa plains and Malagarasi Basin in **Tanzania** between mid March and early April. The situation remained fairly calm in the other outbreak areas in south-central and southern Africa regions where extensive flooding occurred from the heavy rains that fell in the previous months.



Red locust adult and hopper

**Armyworm:**

Armyworm activities were not reported at the time this update was compiled. Normally, armyworm invasions go through a cycle and reach northern Tanzania and Kenya at this time of the year and continue

moving further north into northern Kenya, southern Ethiopia, etc. with the on set of the summer rains.

**Quelea birds:**

A late received update reported Quelea damage to irrigated rice in Kisumu and Nyando districts in **Kenya** where three roosts with a total population of 3.5 million birds were controlled. Quelea birds were also seen attacking crops in Dodoma and Singida regions of **Tanzania** where aerial control operations were carried out by the MoA and FS and DLCO-EA in March and April. It is likely that these birds will continue posing a threat to irrigated and rain fed small grain cereal growers in **Kenya, Tanzania and Zimbabwe.**



A roosting Quelea colony, photo Wikipedia

**Pesticide Stocks**

Pesticide inventories remained unchanged in April in most of the front-line countries except Eritrea, Ethiopia, Sudan and Saudi Arabia where control operations were carried out against DL. Efforts to implement effective and safer handling and use of pesticides and avoid potential problems are in progress.

Country	Quantities in liters
Mali	222,524
Mauritania	585,189
Morocco	3,998,365
Niger	184,084

Senegal	532,960
Yemen	15,000
Algeria, Eritrea, Ethiopia, Libya, Saudi Arabia, Sudan, Tunisia	Data not available

**It is important that countries in the winter, and spring breeding regions remain vigilant and exercise preventive control operations.**

**AELGA will continue monitoring the situation and advise accordingly.**

***Announcement***

Assistance for Emergency Locust and Grasshopper Abatement (AELGA) webpage can be accessed at:

[http://www.usaid.gov/ourwork/humanitarian\\_assistance/disaster\\_assistance/locust/](http://www.usaid.gov/ourwork/humanitarian_assistance/disaster_assistance/locust/)

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