

**Emergency Transboundary  
Outbreak Pest (ETOP) Situation  
Report for August with a Forecast  
till mid-October, 2010**

## Summary

The **Desert Locust (SGR<sup>1</sup>)**: SGR situation remained calm in August in summer breeding areas. Only small-scale breeding was reported in the summer breeding areas in Mauritania and Pakistan. A similar situation may be present in parts of Mali, Niger, southern Algeria and eastern Chad, but could not be confirmed. Scattered adults were detected in northern Sudan and Eastern Ethiopia, but no locusts were reported in other countries during this period (CNLAA/Morocco, DDLC/Libya, DPPQS/India, DLMCC/Yemen, FAO-DLIS, INPV/Algeria, PPD/Ethiopia, PPD/Sudan)

**Forecast:** Small-scale breeding will likely continue in the summer breeding areas from southeast Mauritania to eastern Chad and locust numbers will increase and form groups during the forecast period in areas where ecological conditions are favorable. Small-scale breeding will likely occur and increase locust numbers in the summer breeding areas along the Indo-Pakistan borders. Active surveys and monitoring are essential to avoid any undetected population build up and a potential invasion (DDLC/Libya, DPPQS/India, FAO-DLIS, INPV/Algeria, PPD/Ethiopia, PPD/Sudan).

<sup>1</sup> Definitions of all acronyms can be found on the last pages of this report.

## Other ETOPs

**Red Locust (NSE):** No update was received at the time this report was compiled, but it is likely that adult locusts began forming groups and concentrations in patches of green vegetation. Small swarms will likely form and move to unburned areas during the forecast period and eventually begin laying eggs (AELGA).

**Moroccan (DMA), Italian (CIT) and Migratory (LMI) locusts:** A late received report indicated that DMA season has ended in CAC countries, but CIT activities continued in July where hopper developments, fledglings and egg laying were reported in a number of countries. This situation may have continued well into August. Control operations treated only 15,000 ha against CIT in July and no data was received for August. LMI continued developing in Kazakhstan and Uzbekistan in July and perhaps the situation continued into August. So far, close to 3 million ha were sprayed against DMA, CIT and LMI combined in the CAC countries (FAO-DLIS).

**Madagascar Locust:** A number of swarms of immature and mature Malagasy migratory locust were reported dispersed north and northwest over the past months. Some were seen laying eggs. There is a likelihood of extensive breeding occurring during the upcoming breeding season. **Should that occur, Madagascar will experience one of the most sever locust outbreaks in recent years and will be needing to launch large-scale control interventions through mid-2011.**

**Armyworm (SEX):** SEX activities were not reported in any of the summer outbreak areas in Ethiopia, Eritrea or elsewhere in the region in August and the situation will likely remain calm during the forecast period (AELGA, DLCO-EA, IRLCO-CSA).

**Quelea (QQU):** Aerial spraying was carried out against QQU birds in Nakuru District in the Rift Valley Region in Kenya. The pest was seen feeding on wheat crops and roosting on a neighboring Napier grass fields. Ground control operations continued in some localities in Uasin Gishu, Nyandarua and Narok Districts in the Rift Valley Region. No reports were received from other countries. The pest may threaten winter wheat in Zimbabwe and irrigated wheat, rice and other crops elsewhere during the forecast period. Active surveillance and preventive interventions are necessary (AELGA, DLCO-EA).

**OFDA/AELGA** (Assistance for Emergency Locust and Grasshopper Abatement) will continue monitoring ETOP situation in all regions and issue updates and advices as often as necessary. **End summary**

#### Progress in SGR Frontline Countries:

SRG frontline countries (FCs) in Sahel West Africa, namely **Chad, Mali, Mauritania** and **Niger** have established autonomous national locust control units (CNLA) responsible for all DL activities.

Funds provided by the African Development Bank, the World Bank, USAID, France, FAO, host-governments, neighboring countries and others enabled the FCs to

equip CNLAs with necessary tools, materials and infrastructure as well as train staff and technicians to prevent and respond to DL outbreaks and invasions and avoid the threats they pose to vulnerable communities.

The overhaul of the CNLAs in all four countries is considered a significant improvement over the condition they were at during and prior to the 2003-05 upsurges. It is worth mentioning that the *CNLAs have been able to effectively avert a potentially devastating DL outbreak that began developing in Mauritania in 2009.*

#### OFDA ETOP Activities

- OFDA/TAG continues its initiatives in pesticide risk reduction through stewardship network (PRRSN) to help prevent pesticide related disasters and ensure safety of vulnerable people as well as protect their assets and the environment against pesticide pollution. It is to be recalled that OFDA/TAG has so far successfully launched two sub-regional PRRSNs in Eastern Africa and the Horn. Discussions are underway to launch similar initiatives in **North Africa, Western Africa** and the **Middle East**. Potential partners will be approached in **Eastern Europe, Central Asia**, the **Caucases** as well as the **LAC** regions where OFDA/TAG intends to introduce similar initiatives.
- OFDA continues supporting capacity strengthening and pesticide disposal programs through FAO to mitigate, prevent and respond to DL emergencies and associated environmental risks.
- OFDA contributed to FAO's initiative to strengthen national and regional capacities in Central Asia and the

Caucasus (CAC) to help coordinate locust monitoring and reporting among neighboring countries. The ultimate goal of the initiative is to prevent and mitigating locust threats and improve food security and livelihoods of vulnerable communities. OFDA will continue its support for these initiatives.

- USAID/Morocco, OFDA and USDA/FAS are coordinating a study tour for a team of Moroccan locust experts and other crop protection and food safety specialists. The Moroccan team will be visiting US institutions, agencies and universities that are engaged in activities relevant to the experts. The tour is being sponsored by USAID/Morocco as part of a grant to the Kingdom of Morocco to improve agricultural activities.

**Detailed accounts of ETOP situation and activities as well as ecological and weather data across the various regions are presented below.**

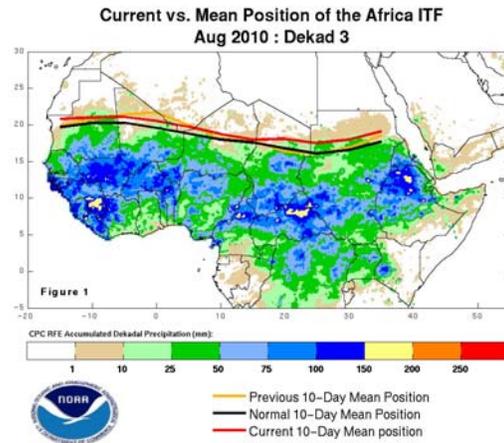
**This SITREP and all others can be accessed on our website:**

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

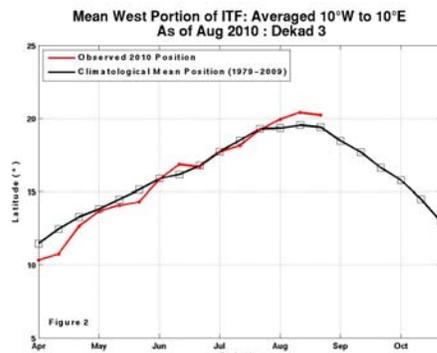
**Weather and ecological conditions**

During the third dekad of August, the ITF moved further north over parts of the far western and eastern regions of the Sahel. Its mean western portion was around 20.2N, with a slight retreat over parts of Mali and Niger, but still remained north over many parts of the region. This was

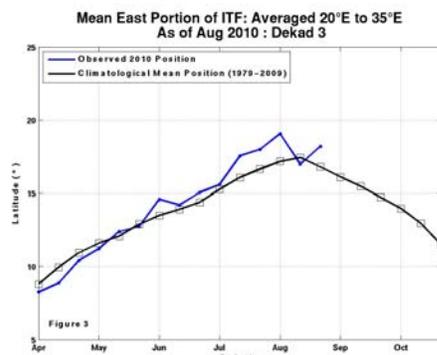
attributed to strong southerly winds and high amounts of available moisture over Senegal, western Mali, and southern Mauritania in late August. The mean eastern portion of the Front was around 18.2N north of its position in the previous dekad (see maps and figures below).



**West Region**

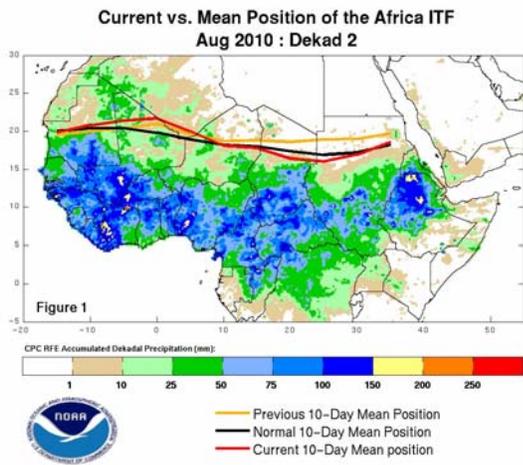


**East Region**



During the second dekad, the Front significantly advanced over many parts of the western Sahel, retreating southward over many parts of the central and eastern

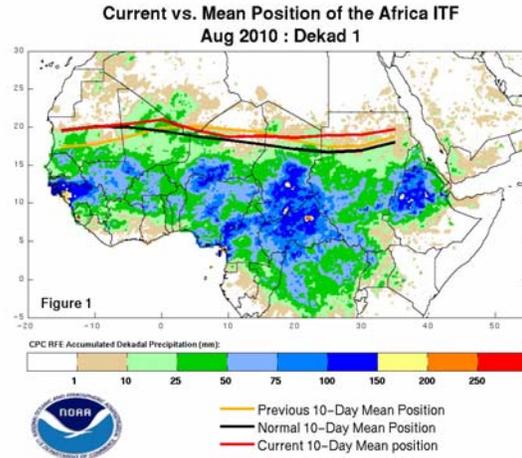
Sahel. The mean for the western portion of the ITF was around 20.4N, above the mean for mid-August and ahead of its previous dekadal position. This was caused by strong southerly winds that extended from the Gulf of Guinea to parts of northern Mali and Mauritania during the early half of this dekad. The mean eastern portion of the ITF was around 17.0N, below the climatological average position for the first time since late May. Over parts of Sudan and Chad, the prevailing northerly, dry, winds suppressed much of the convective rainfall in these areas (see map - NOAA).



During the first dekad of August (1-10), the ITF significantly advanced in many areas in the Sahel, producing heavy rainfall in Senegal, Mali, Mauritania, Niger, and Chad. Its mean western portion was around 19.9N, well north of its average position for early August and ahead of its previous position in July. The mean eastern portion of the ITF was around 19.1N, ahead of the climatological average position for this period. The advancements for both eastern and western portions of the ITF were associated with strong surges of southerly winds and moisture observed throughout the Sahel during early August (see map).

During August, rainfall was above average over southern Mauritania, southern Senegal, southwestern and eastern Mali,

parts of southern and central Niger and most parts of the Gulf of Guinea Countries. Eastern Chad, southern Sudan, northern Ethiopia and some parts of Somalia received above average rainfall.



Seasonably dry weather continued over southern Africa including Madagascar. Rainfall was also above average over the northern areas of central Africa, central Sudan, and western Ethiopia, but below average over southern Sudan during the first week of August (NOAA).

Extended weather forecast for sub-Saharan Africa for the period covering September-November shows an increased chance for below average rainfall along the east coast of Kenya and part of southern Somalia. In Northern Horn Africa, there is an increased chance for above average rainfall over western Ethiopia and locally over southern Sudan. There is an increased chance for below average rainfall over southwestern Sudan, including portions of southern Darfur. During Dec-Feb, Southern Africa will likely experience localized above average rainfall over parts of northern Mozambique, southern Malawi, and parts of eastern South Africa. Northwestern Mozambique, central Malawi, and some areas over southern Mozambique and western South Africa will likely experience below average rainfall (NOAA).

**Note:** *Changes in the weather pattern and the shift in the ecology of landscape are believed to exacerbate the risk of pest outbreaks and resurgence. Regular monitoring and reporting are essential at all times. End note.*

## Detailed accounts of ETOP situations and activities

### DL-SGR - Western Outbreak Region

Small-scale breeding occurred in southeastern Mauritania and perhaps northern Mali and Niger as well as eastern Chad and southern Algeria. The situation could not be confirmed in many of these countries due to security situation. No locusts were reported in Senegal, Burkina, Morocco, or Libya during this period. (DDLC/Libya, FAO-DLIS, INPV/Algeria).

**Forecast:** Small-scale breeding will likely continue and locust numbers could increase and form groups in areas of recent rainfall in Mauritania, and may be Mali, Niger and Chad. Other areas in the region will likely remain calm during the forecast period (DDLC/Libya, FAO-DLIS, and INPV/Algeria).

### DL - Central Outbreak Region

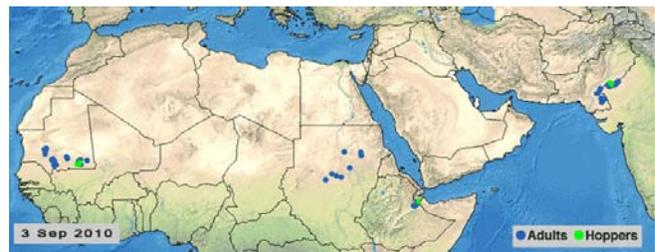
Scattered solitary adults were reported in northern Sudan during surveys carried out in more than 49,000 ha in August. A similar situation may be present in Eritrea, but no update was received during this period. Isolated scattered mature adults and a mixed population of 2nd and 3rd instar hoppers were detected in 1,000 ha during surveys in the summer breeding areas in the Somali Region in Ethiopia in August. Vegetation was green and conditions were favorable in these areas. No locusts were reported in other countries in the region during this period (FAO-DLIS, PPD/Ethiopia, PPD/Sudan).

**Forecast:** Small-scale breeding will likely occur and increased locust numbers in the interior of Sudan, western Eritrea and may be Yemen. Solitary adults could appear in areas of recent rainfall along the coasts of Yemen and northern Somalia, but other countries will likely remain calm during the forecast period. Active survey and monitoring are essential to avoid any surprises (DLCO-EA, FAO-DLIS, AELGA, PPD/Ethiopia, PPD/Sudan).

### DL- Eastern Outbreak Region

Wide-spread monsoon rains continued in August in the summer breeding areas along the Indo-Pakistan borders. Low numbers of locusts were seen breeding in Tharparkar and Cholistan, Pakistan, but no locusts were reported in Rajasthan, Gujarat and other Scheduled Desert Areas in India although some scattered adult may be present (DPPQS/India, FAO-DLIS).

**Forecast:** Ecological conditions will continue improving along the Indo-Pakistan borders and adjacent areas in Rajasthan, Tharparkar and Cholistan and small-scale breeding will occur and increase locust numbers during the forecast period (DPPQS/India, FAO-DLIS).



(Breeding in the summer breeding areas, FAO-DLIS, 9/10)

**Red Locust (NSE):** *No update was received at the time this report was compiled, but it is likely that adult locusts began forming groups and concentrations in patches of green*

vegetation. Small swarms will likely form and move to unburned areas during the forecast period and eventually begin laying eggs (AELGA).

**Forecast:** Concentrations of adult locusts will likely continue and form swarmlets. Egg laying will likely commence during the forecast period in areas where floods have receded (AELGA).

**Madagascar Locusts:** Surveys were not carried out in August and no locusts were reported during this period. Swarms that were seen dispersed to northerly previous months are over-seasoning and awaiting for the rains to come to start laying eggs and begin a new generation.

FAO has put together a strategic action plan and continued contacts with the host-government and development partners. It has also deployed a campaign coordinator and will soon dispatch an entomologist to conduct aerial and ground survey and assess the situation in collaboration with CNA. OFDA has identified activities to support when the need arises. AFR/SD has deployed an expert to update the existing supplemental environmental assessment for Madagascar and also assess the situation (AELGA).

**Forecast:** Considering moist and warm forecast for spring, ecological conditions will likely become favorable and breeding will intensify causing hundreds of thousands of ha requiring control interventions involving significant resources. CNA must remain active and monitor areas where egg laying is believed to have occurred or will likely occur and report any activities as rapidly and as early as possible.

**OFDA/TAG will continue monitoring the situation in collaboration with FAO,**

**CNA and other partners and issue updates and provide advice.**

**Moroccan** (*Dociostaurus maroccanus* - DMA), **Italian Locusts** (*Calliptamus italicus* - CIT), Migratory locust, **Locusta migratoria** (LMI) in CAC: A late received report indicated that DMA populations significantly declined and the season has ended in most of the CAC countries, but CIT activities continued in July where hopper developments, fledglings and egg laying were reported in a number of countries. This situation may have continued well into August. 15,000 ha were sprayed against CIT in July compared to 1.15 million ha in June. LMI activities continued in Kazakhstan and Uzbekistan in July and perhaps in August as well. So far, close to 3 million ha have been sprayed against DMA, CIT and LMI in the CAC countries (FAO-DLIS).

The unusually late outbreak of LMI in Central Asia was caused by the flooding that occurred due to the rise in the water level in the Ural Sea. Subsequent flooding delayed hatching of the eggs till the floods began receding.



(map of locust prone CA countries, FAO)

**Australian Plague Locust (APL):** No update was received at the time this report was compiled, but it is likely that APL continue being active in parts of the country.



(Australian plague locust, source: APLC)

**The Timor and South Pacific:** No update was received in August on locusts or grasshoppers, but it is likely that they remained active during this period.

**Armyworm (SEX):** SEX activities were not reported in any of the outbreak areas in Ethiopia, Eritrea or other countries in the region in August. The situation will likely remain calm during the forecast period (AELGA, DLCO-EA).

**Quelea (QQU):** Aerial spraying was conducted against QQU in August in Nakuru District, in the Rift Valley region of Kenya where the pest was seen feeding on wheat crops roosting on neighboring Napier grasses. Ground control operations were launched in Uasin Gishu, Nyandarura and Narok Districts. QQU reports were not received from other countries, but it is likely that the pest is present and will threaten winter wheat in Zimbabwe and elsewhere in the region. Active surveillance and preventive interventions are essential (AELGA, DLCO-EA).

**Facts:** QQU birds can travel ~100 km/day looking for food. An adult QQU bird can consume 3-5 g of grain and perhaps destroy the same amount each day. A colony composed of a million birds (very common) is capable of consuming and destroying 7-10 tons of seeds/day (enough to feed 15,000-20,000 people for a day).



(A QQU roost, a file photo; free encyclopedia)

**Rodents:** No update was received at the time this report was compiled, but the pest remains a threat to both pre-harvest and post-harvest crops and produces. Barn owl, *Tyto alba* and several other raptor birds and animals are known as nature's biological control of rodents.

Front-line countries are advised to remain vigilant. Countries in the invasion zones should maintain the capacity to avoid any unexpected surprises. DLCO-EA, IRLCO-CSA, national PPDs, CNLAs, DPVs and ELOs are encouraged to continue sharing information with partners and other stakeholders as rapidly and as often as possible.

#### Acridid Pesticide Stocks

Control operation was not conducted and the pesticide inventory remained unchanged in all countries during this period.

The likelihood of some of the pesticides listed in the below box becoming obsolete increases as time goes by. Mindful of this, ETOP-prone countries, particularly those with large stocks, are encouraged to regularly test their stocks and determine whether they should retain, use, share or discard them immediately. All options should be explored to avoid huge environmental and financial costs associated with obsolete pesticides. **A judiciously executed triangulation of pesticides from countries with large stocks to those**

*where the need exists due to imminent threats of ETOP outbreaks is a double-edged alternative that is worthwhile considering.*

**Note:** The core message of **pesticide stewardship [networking]** is to strengthen the national and regional pesticide delivery systems by linking partners at the national, regional and trans-regional levels and thereby reduce pesticide related health risks as well as avoid environmental contaminations, improve food security and ultimately contribute to the national economy. **End note.**

Country	Quantities in l/kg <sup>\$</sup>
Algeria	1,800,000~
Chad	108,085~
Eritrea	44,800~
Ethiopia	17,280
Libya	Data not available
Mali	209,000%~
Mauritania	480,000~@
Morocco	4,104,997~
Niger	28,240+
Senegal	519,000~
Saudi Arabia	Date not available
Sudan	880,964"
Tunisia	167,600~
Yemen	40,500 + 527 kg GM

\$These quantities include ULV, EC and dust formulations  
 ~ data not necessarily current  
 % Mali donated 21,000 l for RL in Malawi, Mozambique and Tanzania late last year and FAO facilitated the triangulation  
 + quantity reported in Agadez left-over stocks of Chlopyrifos from the 2003-DL campaign was tested for quality and found to be usable through 2012  
<sup>m</sup> This includes EC, ULV and Dust for all crop protection uses  
 GM = GreenMuscle

## List of Acronyms

AELGA	Assistance for Emergency Locust Grasshopper Abatement
AME	Anacridium melanorhodon
APL	Australian Plague Locust
APLC	Australian Plague Locust Commission
CAC	Central Asia and the Caucasus
CERF	Central Emergency Response Fund
CIT	Calliptamus italicus
CLCPRO	Commission de Lutte Contre le Criquet Pèlerin dans la Région Occidentale (Commission for the Desert Locust Control in the Western Region)
CNLA/CNLAA	Centre National de Lutte Antiacridienne (National Locust Control Center)
CRC	Commission for Controlling Desert Locust in the Central Region
CTE	Chortoicetes terminifera
DDLDC	Department of Desert Locust Control
DL	Desert Locust
DLCO-EA	Desert Locust Control Organization for Eastern Africa
DMA	Dociostaurus maroccanus
DPPQS	Department of Plant Protection and Quarantine Services
DPV	Département Protection des Végétaux (Department of Plant Protection)
ELO	EMPRES Liaison Officers
EMPRES	Emergency Prevention System for Transboundary Animal and Plant Pests and Diseases
ETOP	Emergency Transboundary Outbreak Pest
ha	hectare (= 10,000 sq. meters)
IRIN	Integrated Regional Information Networks

IRLCO-CSA	<i>International Red Locust Control Organization for Central and Southern Africa</i>
ITCZ	<i>Inter-Tropical Convergence Zone</i>
ITF	<i>Inter-Tropical Convergence Front = ITCZ)</i>
FAO-DLIS	<i>Food and Agriculture Organizations' Desert Locust Information Service</i>
Kg	<i>Kilogram (~2.2 pound)</i>
L	<i>Liter (1.057 quarts or 0.264 gallon or 33.814 US fluid ounces)</i>
LMI	<i>Locusta migratoria</i>
LPA	<i>Locustana pardalina</i>
MoAFSC	<i>Ministry of Agriculture, Food Security and Cooperatives</i>
MoARD	<i>Ministry of Agriculture and Rural Development</i>
NOAA	<i>National Oceanic and Aeronautic Administration</i>
NSE	<i>Nomadacris septemfasciata</i>
OFDA	<i>Office of U.S. Foreign Disaster Assistance</i>
PHD?S	<i>Plant Health Directorate/ Services</i>
PPD	<i>Plant Protection Department</i>
PPSD	<i>Plant Protection Services Division/Department</i>
PRRSN	<i>Pesticide Risk Reduction through Stewardship Network</i>
QQU	<i>Quelea quelea</i>
SEX	<i>Spodoptera exempta</i>
SGR	<i>Schistoseca gregaria</i>
SWAC	<i>South West Asia DL Commission</i>
TAG	<i>Technical Assistance Group</i>
USAID	<i>Unites States Agency for International Development</i>
UN	<i>the United Nations</i>

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

**Point of Contact:**

If you have any questions, comments or suggestions, please, feel free to send us an e-mail: [ybelayneh@ofda.gov](mailto:ybelayneh@ofda.gov)  
Yeneneh T. Belayneh, Ph. D.

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