



## Desert Locust Bulletin

General situation during May 2021  
Forecast until mid-July 2021

### WESTERN REGION: CALM

**SITUATION.** Local breeding in **Algeria** (32 ha treated) and scattered adults in northeast **Morocco**.

**FORECAST.** Small-scale breeding in the Sahel of **Mauritania**, **Mali**, **Niger** and **Chad** once summer rains commence.

### CENTRAL REGION: THREAT

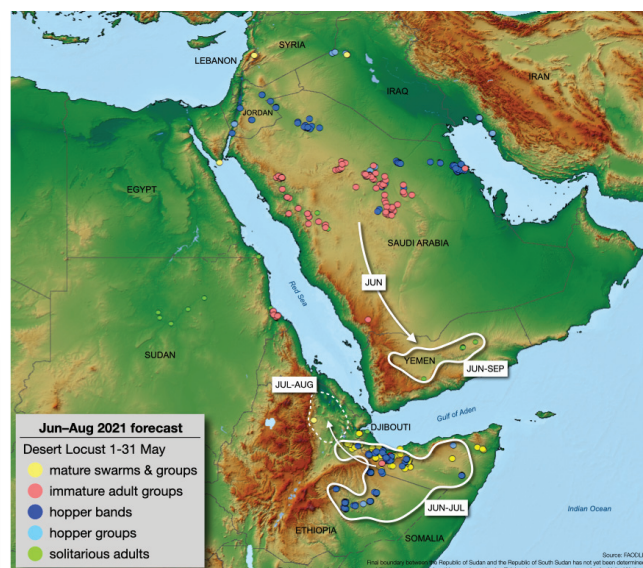
**SITUATION.** Swarms continue laying and hatching with early instar bands steadily forming in **Ethiopia** (12 663 ha treated) and **Somalia** (18 304 ha); limited swarm laying in **Djibouti**. Adult groups decline on Red Sea coast of **Sudan** (2 868 ha). Limited hatching and hoppers form groups or bands in **Iraq** (502 ha), **Jordan** (300 ha), **Syria** (269 ha), **Lebanon** (31 ha), **Israel**; mature adult groups in Sinai, **Egypt** (20 ha). Hopper groups and bands fledge to form immature adult groups in **Saudi Arabia** (11 156 ha) interior; some move south towards Yemen; scattered adults in **Yemen** interior.

**FORECAST.** Hatching and band formation in eastern **Ethiopia** and northern **Somalia** with fledging and swarm formation from late June onwards. Local breeding possible in northern **Kenya**. A few small groups may form in **Iraq**, **Jordan**, **Syria** and **Lebanon**, and move south. Immature adult groups and perhaps a few small swarms may form in **Saudi Arabia** interior and move to Yemen for breeding in the interior. Small-scale breeding in summer breeding areas of **Sudan** and western **Eritrea** once seasonal rains start.

### EASTERN REGION: CALM

**SITUATION.** Hatching and hopper group formation in southwest **Iran** (6 370 ha treated).

**FORECAST.** Small adult groups could form in southwest **Iran** and move to the Indo-Pakistan summer breeding areas where small-scale breeding will commence with the monsoon in July.



### Hatching and band formation in Ethiopia and Somalia

Despite an earlier decline, the current upsurge prevails in the Horn of Africa where good rains allowed breeding to continue with hatching and more hopper bands forming in eastern Ethiopia and northern Somalia during May. In addition to aerial operations, ground survey and control teams will play an important role in finding and reducing hopper band infestations before they fledge and form a new generation of immature swarms from late June onwards, which are expected to move to the Afar region in northeast Ethiopia for summer breeding in August and September. Hopper bands declined in the northern interior of Saudi Arabia due to control and drying conditions. Nevertheless, immature adult groups and perhaps a few small swarms could form and move south to the interior of Yemen where conditions are favourable for breeding. Control operations were undertaken in parts of Iraq, Jordan, Syria and Lebanon against hoppers that hatched and formed small groups and bands as a result of earlier breeding by adult groups and small swarms that arrived in April. Although control operations continued in southwest Iran against hopper groups, a few small groups of immature adults could form and move east to the Indo/Pakistan border where small scale breeding is likely to commence with the onset of the monsoon. Once the summer rains begin, small-scale breeding is expected to occur in the Sahel of West Africa and Sudan from July onwards.

The FAO Desert Locust Bulletin is issued every month by the Desert Locust Information Service (DLIS) at FAO HQ in Rome, Italy. DLIS continuously monitors the global Desert Locust situation, weather and ecology to provide early warning based on survey and control results from affected countries, combined with remote sensing, historical data and models. The bulletin is supplemented by Alerts and Updates during periods of increased Desert Locust activity.

Telephone: +39 06 570 52420 (7 days/week, 24 hr)

E-mail: [eclo@fao.org](mailto:eclo@fao.org) / [faodlislocust@gmail.com](mailto:faodlislocust@gmail.com)

Internet: [www.fao.org/ag/locusts](http://www.fao.org/ag/locusts)

Facebook/Twitter: [faolocust](https://www.facebook.com/faolocust)



## Weather & Ecological Conditions in May 2021

**Extensive rains fell over the Horn of Africa and parts of Yemen that allowed favourable breeding conditions. Cyclone Tauktae brought heavy rains to western India.**

### WESTERN REGION

Little rain fell in the region during May except for light showers in the Tenere Desert in northeast Niger and near Ghat in southwest Libya during the first decade, the Adrar des Iforas in northern Mali during the second decade, and near the Mali/Algeria/Mauritania border during the third decade. Consequently, breeding conditions were not favourable except in some localized areas in northeast Morocco near Bouarfa and in the Central Sahara of Algeria near irrigated perimeters in the Adrar Valley. In the Sahel of West Africa, the Inter-Tropical Convergence Zone (ITCZ) continued its seasonal movement northwards during May but remained south of the summer breeding areas.

### CENTRAL REGION

In East Africa, the prevailing southerly winds progressed further north during the month and reached northern Somalia where they became established with the southwest monsoon winds over the Horn of Africa. Light to moderate rains fell over most of Ethiopia and Somalia during the first decade, reaching the southern coast of Eritrea as well as coastal and interior areas of southwest Yemen. Lighter rains fell in the interior of Yemen. During the remainder of May, very little rain fell in the region except for light showers near Garowe in northeast Somalia during the second decade. Ecological conditions were favourable for breeding over a large and widespread area encompassing the Somali region in eastern Ethiopia from the Shebelle River to the plateau and escarpment in northern Somalia. In Saudi Arabia, conditions were drying out in the interior as temperatures increased during the month. In Yemen, ecological conditions were favourable for breeding in the interior where good rains and floods occurred in parts of Al Jawf, Marib, Shabwah, Hadhramaut and Al Mahrah governorates in April. Conditions may also be favourable on the Red Sea and Gulf of Aden coasts from rains in early May.

### EASTERN REGION

In the spring breeding areas, light rains fell in parts of southeast Iran and southwest Pakistan during the first decade of May. Mainly dry ecological conditions prevailed in most areas except for parts of the southwest coast near Bushehr. In the summer breeding areas, light pre-monsoon showers fell in some places along the Indo-Pakistan border during the first and third decades of May. During the second decade, heavier rain fell to the east of Jodhpur in eastern Rajasthan as a result of cyclone Tauktae, the first cyclone

of this year and the strongest since 1998. It made landfall in Saurashtra region of Gujarat, India on 17 May with winds up to 205 km/h that weakened as it moved inland, bringing heavy rain to Ahmedabad (114 mm) on the 18th and Delhi (119 mm) on the 19<sup>th</sup>, the single highest daily May rainfall in history. The outer edge of the cyclone reached lower Sindh province in southeast Pakistan, causing high temperatures, dust storms and light rainfall.



### Area Treated

Control operations treated 52 515 ha in May compared to 42 681 ha in April.

Algeria	32 ha
Egypt	20 ha
Ethiopia	12 663 ha
Iran	6 370 ha
Iraq	502 ha
Jordan	300 ha
Lebanon	31 ha
Saudi Arabia	11 156 ha
Somalia	18 304 ha
Sudan	2 868 ha
Syria	269 ha
	3 092 ha (April)



### Desert Locust Situation and Forecast

### WESTERN REGION

#### MAURITANIA

##### • SITUATION

No locusts were reported during May.

##### • FORECAST

*Low numbers of adults are likely to appear in the southeast and breed on a small scale with the onset of the summer rains.*

#### MALI

##### • SITUATION

No locusts were reported during May.

##### • FORECAST

*Small-scale breeding is expected to occur with the onset of the summer rains in the Adrar des Iforas, Tilemsi Valley, Timetrine and Tamesna.*

#### NIGER

##### • SITUATION

No locusts were reported during May.

- **FORECAST**

*Low numbers of adults are likely to appear in the central pasture areas and on the Tamesna Plains where small-scale breeding is expected to occur with the onset of the summer rains.*

## **CHAD**

- **SITUATION**

No locusts were reported during May.

- **FORECAST**

*Low numbers of adults are likely to appear in the summer breeding areas of the central and northern areas by the end of the forecast period and eventually breed on a small scale with the onset of the seasonal rains.*

## **SENEGAL**

- **SITUATION**

No reports were received during May.

- **FORECAST**

*No significant developments are likely.*

## **BENIN, BURKINA FASO, CAMEROON, CAPE VERDE, CÔTE D'IVOIRE, GAMBIA, GHANA, GUINEA, GUINEA BISSAU, LIBERIA, NIGERIA, SIERRA LEONE, AND TOGO**

- **FORECAST**

*No significant developments are likely.*

## **ALGERIA**

- **SITUATION**

During May, scattered hoppers of all instars, immature and mature solitary adults were present in the central Sahara between In Salah (2712N/0229E), Reggane (2643N/0010E) and Adrar (2753N/0017W). Some of the *transiens* hoppers and mature adults were forming small groups. Ground teams treated 32 ha. Scattered immature and mature solitary adults were seen further south near Tamanrasset (2250N/0528E). No locusts were seen northwest of Adrar near Bechar (3135N/0217W).

- **FORECAST**

*Scattered adults may persist in the Adrar Valley and west of Tamanrasset where they could form a few small groups as vegetation dries out.*

## **MOROCCO**

- **SITUATION**

During the first decade of May, isolated mature solitary adults were seen in the northeast between Bouarfa (3232N/0159W) and the Algeria border.

- **FORECAST**

*No significant developments are likely.*

## **LIBYA**

- **SITUATION**

No surveys were conducted, and no locusts were reported during May.

- **FORECAST**

*No significant developments are likely.*

## **TUNISIA**

- **SITUATION**

No locusts were reported during May.

- **FORECAST**

*No significant developments are likely.*

## **CENTRAL REGION**

### **SUDAN**

- **SITUATION**

During May, a late instar hopper band was seen on the Red Sea coast near Tokar (1827N/3741E) on the 1<sup>st</sup>. Immature and mature solitary adults were present at several nearby places during the remainder of the first decade. As vegetation dried out, most of the adults formed immature groups from earlier fledging while only a few were maturing. Control operations finished on the Red Sea coast on 9 May, having treated 2 868 ha of which 2 050 ha were by air. In the Nile Valley, scattered mature solitary adults were present near Abu Hamed (1932N/3320E) and Dongola (1910N/3027E).

- **FORECAST**

*A few small groups of immature and mature adults from the Red Sea coast may appear near cropping areas in the Nile and Atbara river valleys where limited breeding could take place. Scattered adults are expected to start appearing in the summer breeding areas of North and West Kordofan, White Nile, and North Darfur at the end of the forecast period and eventually breed on a small scale with the onset of the seasonal rains.*

### **ERITREA**

- **SITUATION**

No reports were received during May.

- **FORECAST**

*Low numbers of adults are likely to appear in the western lowlands and breed on a small scale with the onset of the summer rains.*

### **ETHIOPIA**

- **SITUATION**

During May, mature swarms were seen copulating and laying in several zones of Somali region until the 22<sup>nd</sup>, mainly between Jijiga (0922N/4250E) and Kebri Dehar (0644N/4416E) in Fafan and Jarar zones, and near Ayasha (1045N/4234E) in Siti zone. Mature swarms were also seen on 20–21 May west of Ayasha towards Afar region. As laying had started about 27 April, hatching commenced about 11 May and an increasing number of first and second instar hopper bands formed in Siti, Fafan, Jarar, Nogob, Erer and Afder zones as well as in eastern Bale zone in Oromia region. Control operations treated 12 663 ha of which 5 264 ha were by air. No locusts were seen in the southern Rift Valley.

#### • FORECAST

*Hatching is likely to continue until the end of the first week of June. An increasing number of hopper bands will form in the Somali region, including eastern zones. Limited breeding may also be underway in southern Oromia and Somali regions. Fledging is expected to start about mid-June, peak in late June and finish by mid-July, giving rise to immature swarms.*

### DJIBOUTI

#### • SITUATION

During May, at least one mature swarm was present and copulating near Petit and Grand Barra south of Arta on 16–18<sup>th</sup>. Mature adults were also seen at one place along the coast to the east of Djibouti (1134N/4308E) town.

#### • FORECAST

*If habitat conditions are suitable, hatching may occur in early June near Petit and Grand Barra. This could cause a few small hopper bands to form that would fledge about mid-July, giving to a few small immature adult groups or swarms.*

### SOMALIA

#### • SITUATION

During May, mature swarms were seen copulating and laying in the northwest (Somaliland), mainly on the plateau as far east as Burco (0931N/4533E) as well as on the escarpment and at a few places along the coast near Lughaye (1041N/4356E) and Berbera (1028N/4502E). In the northeast (Puntland), a few mature swarms were seen during the second and third weeks near Iskushuban (1017N/5014E) and northwest of Gardo (0930N/4905E). As laying had started about 25 April, hatching commenced about 9 May and an increasing number of early instar hopper bands formed in Somaliland and at one place south of Gardo in Puntland. Control operations treated 18 304 ha of which 5 638 ha were by air. No locusts were seen in the central areas near Galkayo (0646N/4725E).

#### • FORECAST

*Hatching may continue in early June and thereafter an increasing number of hopper bands are expected to form on the northern plateau between Boroma and Garowe. Fledging is likely to start about mid-June, peak in late June and finish by mid-July, giving rise to immature swarms.*

### KENYA

#### • SITUATION

During May, surveys continued in northern and central counties, and no locusts were reported.

#### • FORECAST

*Local breeding may have occurred in a few places of the north by any remnant populations that could give rise to small groups of adults in late June.*

### EGYPT

#### • SITUATION

During May, isolated immature solitary adults were present on the Red Sea coast in the southeast near Halaib (2213N/3638E) and the Sudan border. Ground teams treated a group of mature adults covering 20 ha at the southern tip of the Sinai Peninsula near Sharm Esh Sheikh (2752N/3413E) on the 7<sup>th</sup>.

#### • FORECAST

*No significant developments are likely.*

### SAUDI ARABIA

#### • SITUATION

During May, numerous hopper groups and bands were present in the interior between Riyadh (2439N/4642E) and Hail (2731N/4141E), further north near Al Jawf (2948N/3952E) and in the east near Jubail (2700N/4939E). Those in the north were mainly early instar while those in central and eastern areas were late instar. Fledging occurred throughout the month and groups of immature adults formed in central areas and along the eastern side of the Hijaz Mountains between Medinah (2430N/3935E) and Al Ula (2637N/3755E). During the last week, hopper infestations declined, and few remained in northern areas. On the 27<sup>th</sup>, an immature group arrived in the Asir Mountains of the southwest near Khamis Mushait (1819N/4245E), indicating a southerly movement from the spring breeding areas further north. Control teams treated 11 156 ha of which 5 650 ha were by air.

#### • FORECAST

*Fledging will occur in the north near Al Jawf, causing small immature groups to form. This may be supplemented by a few small groups arriving from countries to north. As conditions become hot and dry, any remaining immature adult groups and perhaps a few small swarms that form are likely to move from the interior south to Yemen while a few groups in the east could move through the Persian Gulf.*

### YEMEN

#### • SITUATION

During May, scattered immature and mature solitary adults were seen in the eastern interior on the plateau southwest of Thamud (1717N/4955E) while scattered mature solitary adults were present near Nisab (1430N/4629E). No locusts were seen in the interior near Bayhan (1452N/4545E), Ataq (1435N/4649E), Wadi Hadhramaut, and on the Thamud plateau near Hazar (1744N/4901E) and Remah (1727N/5034E).

#### • FORECAST

*Small-scale breeding is likely to occur in areas of recent rainfall in the interior between Marib, Ataq and Thamud. This may be supplemented by immature groups and small swarms arriving from Saudi Arabia during June.*



## OMAN

### • SITUATION

During May, no locusts were seen in the northern interior between Adam (2223N/5731E) and Buraimi (2415N/5547E), in the northeast near Sur (2234N/5930E), on the northern coast, Musandam Peninsula, and in the interior of the southern province of Dhofar near Thumrait (1736N/5401E).

### • FORECAST

*No significant developments are likely.*

## IRAQ

### • SITUATION

During May, a group of mature adults were seen on the 1<sup>st</sup> in the northern Euphrates Valley near Anah (3422N/4200E). Hatching occurred in a few places along a 100 km stretch of the valley between Anah and the Syria border where mature adult groups were seen in April. The hoppers formed small first to third instar hopper groups. Ground control operations ended on 23 May after treating 502 ha during the month. No locusts were seen thereafter.

### • FORECAST

*No significant developments are likely.*

## JORDAN

### • SITUATION

During the first half of May, hatching occurred near several agricultural areas as a result of laying by mature groups and swarmlets from mid-April to early May. Thereafter, groups of first and second instar hoppers were seen at mid-month near Azraq (3150N/3649E), Al Jafr (3019N/3610E), and in the Araba Valley near Ghor Safi (3102N/3528E). Control operations treated 300 ha.

### • FORECAST

*There is a low risk that a few immature adult groups or small swarms could form in areas where breeding occurred. If so, they would move south out of the country from late June onwards.*

## ISRAEL

### • SITUATION

During May, limited breeding occurred in the Araba Valley near the Jordan border and first instar hoppers were detected in 50 ha of crops near Yahel (3005N/3508E) on the 8<sup>th</sup>. As migrating birds subsequently ate the hoppers, control operations were not necessary. No further locusts were seen after mid-month.

### • FORECAST

*No significant developments are likely.*

## SYRIA

### • SITUATION

During the first week of May, control operations continued near Damascus (3331N/3618E) and in the north near Aleppo (3612N/3709E), treating 269 ha.

### • FORECAST

*There is a low risk that a few immature adult groups or small swarms could form in areas where breeding occurred. If so, they would move south out of the country from late June onwards.*

## LEBANON

### • SITUATION

During May, a group of mature adults was seen on the 1<sup>st</sup> in the northern Bekaa Valley south of Ras Baalbek (3416N/3625E). On the 16<sup>th</sup>, scattered hoppers from earlier breeding were reported at one place in the hills between Aarsal (3410N/3625E) and the Syria border. No locusts were seen elsewhere in the Bekaa Valley north of Zahle (3350N/3554E). Control operations treated 31 ha.

### • FORECAST

*No significant developments are likely.*

## BAHRAIN, KUWAIT, QATAR AND UAE

### • FORECAST

*A few immature adult groups or small swarms from eastern Saudi Arabia may transit in an easterly direction during June.*

## D.R. CONGO, PALESTINE, SOUTH SUDAN, TANZANIA, TURKEY AND UGANDA

### • FORECAST

*No significant developments are likely.*

## EASTERN REGION

### IRAN

#### • SITUATION

During May, hatching continued on the southwest coast west of Bushehr in Khuzestan Province where hoppers of all instars formed a few groups near Bandar Ganaveh (2934N/5031E) and Bandar Mahshahr (3034N/4911E). Ground control operations treated 6 370 ha. No locusts were seen or reported elsewhere along the southern coast and in subcoastal areas from Hormozgan to Sistan-Baluchistan and in the northeastern province of South Khorasan.

#### • FORECAST

*A few small immature adult groups could form on the southwest coast near Bushehr during June. This may be supplemented by immature groups and small swarms arriving from eastern Saudi Arabia. In both cases, the adults are likely to move east along the southern coast towards Indo-Pakistan summer breeding areas.*

## PAKISTAN

### • SITUATION

During May, no locusts were seen or reported in coastal and interior areas of Baluchistan.

#### • FORECAST

*Low numbers of solitary adults are likely to appear in Cholistan, Nara and Tharparkar during July where small-scale breeding is likely once the monsoon commences. No significant developments are likely.*

### INDIA

#### • SITUATION

During May, no locusts were seen by surveys in Rajasthan and Gujarat.

#### • FORECAST

*Low numbers of solitary adults are likely to appear in Rajasthan and Gujarat during July where small-scale breeding is expected once the monsoon commences. No significant developments are likely.*

### AFGHANISTAN

#### • SITUATION

No locust reports were received during May.

#### • FORECAST

*No significant developments are likely.*



## Announcements

### Locust warning levels

A colour-coded scheme indicates the seriousness of the current Desert Locust situation: **green** for *calm*, **yellow** for *caution*, **orange** for *threat*, and **red** for *danger*. The scheme is applied to the Locust Watch web page and to the monthly bulletins. The levels indicate the perceived risk or threat of current Desert Locust infestations to crops and appropriate actions are suggested for each level.

### Locust reporting

**Calm (green) periods.** Countries should report at least once/month and send RAMSES data with a brief interpretation.

**Caution (yellow), threat (orange) and danger (red) periods.** During locust outbreaks, upsurges and plagues, RAMSES output files with a brief interpretation should be sent regularly every three days.

**Bulletins.** Affected countries are encouraged to prepare decadal and monthly bulletins summarizing the situation and share them with other countries.

**Reporting.** All information should be sent by e-mail to the FAO Desert Locust Information Service ([eclo@fao.org](mailto:eclo@fao.org) and [faodlislocust@gmail.com](mailto:faodlislocust@gmail.com)). Reports received by the first two days of the new month will be included in the FAO Desert Locust Bulletin; otherwise, they will not appear until the following month. Reports should be sent even if no locusts were found or if no surveys were conducted.

### Desert Locust upsurge and response

On 17 January 2020, the Director-General of FAO activated the L3 protocols, the highest emergency level in the United Nations system, in FAO to allow fast-tracking an effective response to the upsurge in the Horn of Africa.

[[www.fao.org/locusts](http://www.fao.org/locusts)]

### eLocust3 tools

FAO has developed three new free tools – a mobile app (eLocust3m), a GPS app (eLocust3g), and an Internet form (eLocust3w) – for improving survey and control reporting by field teams and communities. The data is critical for monitoring the situation and organizing control operations in each country and feeds into FAO's global early warning system.

[<http://www.fao.org/ag/locusts/en/activ/2573/eL3suite/index.html>]

### Desert Locust Standard Operating Procedures (SOPs)

A new SOP on Biology as well as an updated Ground Survey SOP, including instructions on how to use eLocust3, eLocust3g and eLocust3m, are available on Locust Watch. French and Arabic versions will be available shortly. The PDF is meant for printing pocket-sized (A5) hard copies.

[<http://www.fao.org/ag/locusts/en/publicat/gl/sops/index.html>]

### Desert Locust posters

FAO in collaboration with OCHA has developed six simple, easy to understand posters for communities that may be affected by locusts. The purpose is to provide basic messaging on pesticide containers, safety measures, pesticide exposure, farmer advice, Desert Locust, and following instructions. The posters can be edited.

[<http://www.fao.org/ag/locusts/en/publicat/2581/index.html>]

### Desert Locust animation

FAO in collaboration with SWABO has produced a simple animation that explains the danger of Desert Locust.

[<https://www.youtube.com/watch?v=3TOhuA-v1m4>]

### Locust Hub

FAO in partnership with ESRI operates a centralized hub for the latest Desert Locust data and progress on the emergency response to the Desert Locust upsurge.

[<https://locust-hub-hqfao.hub.arcgis.com>]

### Hand-in-Hand geospatial platform

FAO has developed the Hand-in-Hand geospatial platform that also integrates Desert Locust data from the Locust Hub.

[<https://data.apps.fao.org>]

## Calendar

- **CLCPRO.** 10<sup>th</sup> session, Algiers, Algeria (October, tbc)
- **CRC.** 32<sup>nd</sup> session, Jeddah, Saudi Arabia (November, tbc)



## Glossary of terms

The following special terms are used in the Desert Locust Bulletin when reporting locusts:

### Non-gregarious adults and hoppers

#### Isolated (few)

- very few present and no mutual reaction occurring
- 0–1 adult/400 m foot transect (or less than 25/ha)

#### Scattered (some, low numbers)

- enough present for mutual reaction to be possible but no ground or basking groups seen
- 1–20 adults/400 m foot transect (or 25–500/ha)

#### Group

- forming ground or basking groups
- 20+ adults/400 m foot transect (or 500+/ha)

### Adult swarm and hopper band sizes

#### Very small

- swarm: less than 1 km<sup>2</sup>      • band: 1–25 m<sup>2</sup>

#### Small

- swarm: 1–10 km<sup>2</sup>      • band: 25–2,500 m<sup>2</sup>

#### Medium

- swarm: 10–100 km<sup>2</sup>      • band: 2,500 m<sup>2</sup> – 10 ha

#### Large

- swarm: 100–500 km<sup>2</sup>      • band: 10–50 ha

#### Very large

- swarm: 500+ km<sup>2</sup>      • band: 50+ ha

### Rainfall

#### Light

- 1–20 mm

#### Moderate

- 21–50 mm

#### Heavy

- more than 50 mm

### Summer rains and breeding areas

- July–September/October
- Sahel of West Africa, Sudan, western Eritrea; Indo-Pakistan border

### Winter rains and breeding areas

- October–January/February
- Red Sea and Gulf of Aden coasts; northwest Mauritania, Western Sahara

### Spring rains and breeding areas

- February–June/July
- Northwest Africa, Arabian Peninsula interior, Somali plateau, Iran/Pakistan border

## Other reporting terms

### Breeding

- The process of reproduction from copulation to fledging

### Recession

- Period without widespread and heavy infestations by swarms

### Remission

- Period of deep recession marked by the complete absence of gregarious populations

### Outbreak

- A marked increase in locust numbers due to concentration, multiplication and gregarisation which, unless checked, can lead to the formation of hopper bands and swarms

### Upsurge

- A period following a recession marked initially by a very large increase in locust numbers and contemporaneous outbreaks followed by the production of two or more successive seasons of transient-to- gregarious breeding in complimentary seasonal breeding areas in the same or neighbouring Desert Locust regions

### Plague

- A period of one or more years of widespread and heavy infestations, the majority of which occur as bands or swarms. A major plague exists when two or more regions are affected simultaneously

### Decline

- A period characterised by breeding failure and/or successful control leading to the dissociation of swarming populations and the onset of recessions; can be regional or major

## Warning levels

### Green

- *Calm.* No threat to crops; maintain regular surveys and monitoring

### Yellow

- *Caution.* Potential threat to crops; increased vigilance is required; control operations may be needed

### Orange

- *Threat.* Threat to crops; survey and control operations must be undertaken

### Red

- *Danger.* Significant threat to crops; intensive survey and control operations must be undertaken

## Regions

### Western

- Locust-affected countries in West and North-West Africa: Algeria, Chad, Libya, Mali, Mauritania, Morocco, Niger, Senegal, Tunisia; during upsurges and plagues only: Benin, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Nigeria, Sierra Leone and Togo

## Central

- Locust-affected countries along the Red Sea: Djibouti, Egypt, Eritrea, Ethiopia, Oman, Saudi Arabia, Somalia, Sudan, Yemen; during upsurges and plagues only:

Bahrain, D.R. Congo, Iraq, Israel, Jordan, Kenya, Kuwait, Lebanon, Palestine, Qatar, South Sudan, Syria, Tanzania, Turkey, UAE and Uganda

## Eastern

- Locust-affected countries in South-West Asia: Afghanistan, India, Iran and Pakistan.



## Useful tools and resources

**FAO Locust Watch.** Information, maps, activities, publications, archives, FAQs, links

<http://www.fao.org/ag/locusts>

**FAO/ESRI Locust Hub.** Desert Locust maps and data download, and emergency response progress

<https://locust-hub-hqfao.hub.arcgis.com>

**FAO regional commissions.** Western Region (CLCPRO), Central Region (CRC), South-West Asia (SWAC)

<http://www.fao.org/ag/locusts>

**IRI RFE.** Rainfall estimates every day, decade and month

[http://iridl.ldeo.columbia.edu/maproom/.Food\\_Security/Locusts/index.html](http://iridl.ldeo.columbia.edu/maproom/.Food_Security/Locusts/index.html)

**IRI Greenness maps.** Dynamic maps of green vegetation evolution every decade

[http://iridl.ldeo.columbia.edu/maproom/Food\\_Security/Locusts/Regional/greenness.html](http://iridl.ldeo.columbia.edu/maproom/Food_Security/Locusts/Regional/greenness.html)

**NASA WORLDVIEW.** Satellite imagery in real time

<https://worldview.earthdata.nasa.gov>

**Windy.** Real time rainfall, winds and temperatures for locust migration

<http://www.windy.com>

**eLocust3 suite.** Digital tools for data collection in the field (mobile app, web form, GPS)

<http://www.fao.org/ag/locusts/en/activ/DLIS/eL3suite/index.html>

**eLocust3 training videos.** A set of 15 introductory training videos are available on YouTube

<https://www.youtube.com/playlist?list=PLf7Fc-oGpFHEdv1jAPaF02TCfpcnYoFQT>

**RAMSESV4 training videos.** A set of basic training videos are available on YouTube

<https://www.youtube.com/playlist?list=PLf7Fc-oGpFHGyzXqE22j8-mPDhhGNq5So>

**RAMSESV4 and eLocust3.** Installer, updates, videos, inventory and support

<https://sites.google.com/site/rv4elocust3updates/home>

**FAOLocust Twitter.** The very latest updates posted as tweets

<http://www.twitter.com/faolocust>

**FAOLocust Facebook.** Information exchange using social media

<http://www.facebook.com/faolocust>

**FAOLocust Slideshare.** Locust presentations and photos

<http://www.slideshare.net/faolocust>

**eLERT.** Online database of resources and technical specifications for locust emergencies

<http://sites.google.com/site/elertsite>

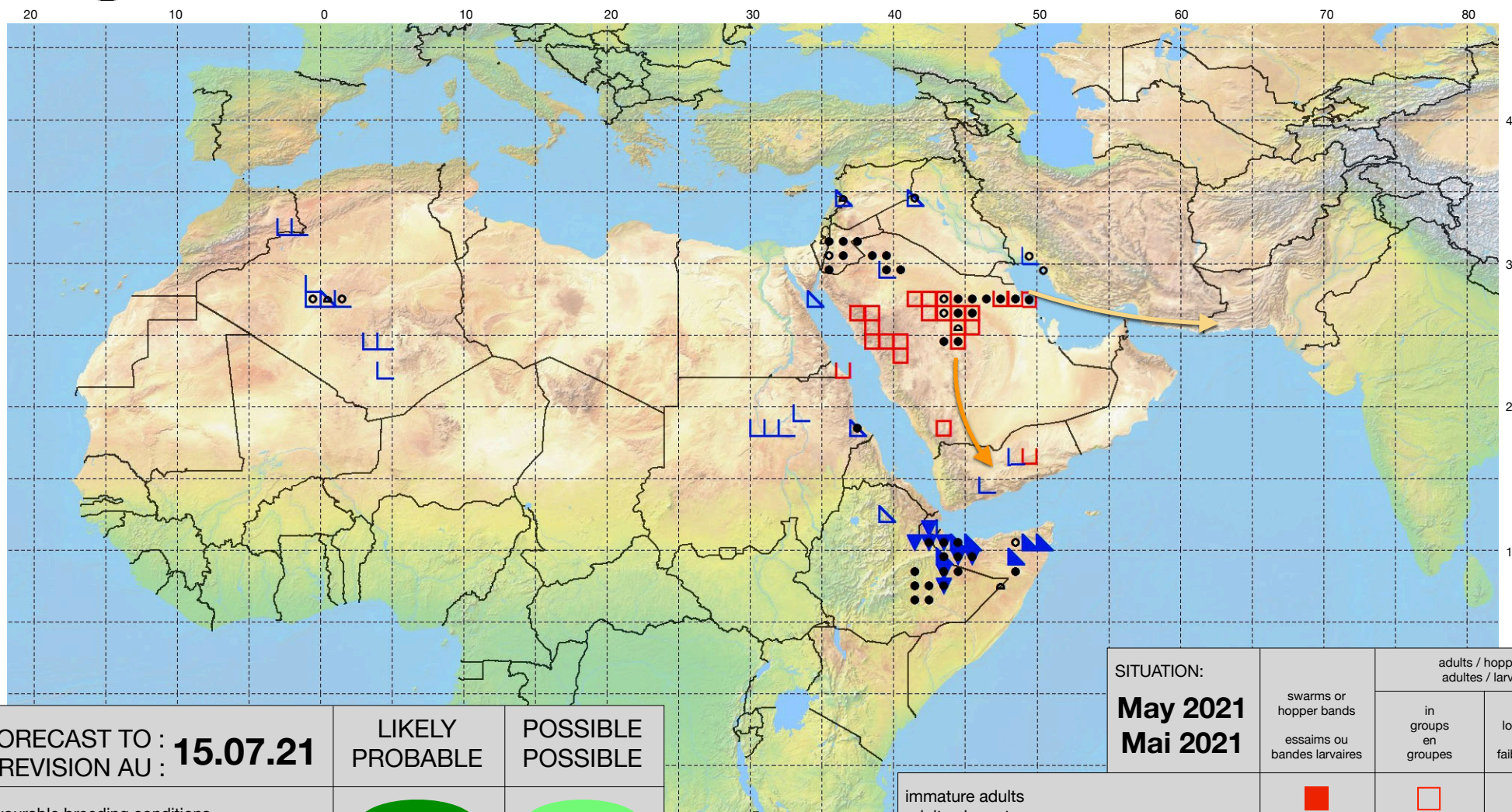

























# Desert Locust Summary

## Criquet pèlerin – Situation résumée

512 



FORECAST TO : PREVISION AU : <b>15.07.21</b>	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favorables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarms(s) essaim(s) limité(s)		
non swarming adults adults non essaimant		

SITUATION: May 2021 Mai 2021	swarms or hopper bands essaims ou bandes larvaires	adults / hoppers adultes / larves	
		in groups en groupes	density low/unknown densité faible/inconnue
immature adults adultes immatures			
mature or partially mature adults adultes matures ou partiellement matures			
adults, maturity unknown adultes, maturité inconnue			
egg laying or eggs pontes ou œufs			
hoppers larves			
hoppers & adults (combined example) larves et adultes (symboles combinés)	