



## Desert Locust Bulletin

General situation during March 2021  
Forecast until mid-May 2021

### WESTERN REGION: CALM

**SITUATION.** Low numbers of solitary adults in **Morocco** and **Algeria**.

**FORECAST.** Small-scale spring breeding south of the Atlas Mountains in **Morocco** and central **Algeria**.

### CENTRAL REGION: THREAT

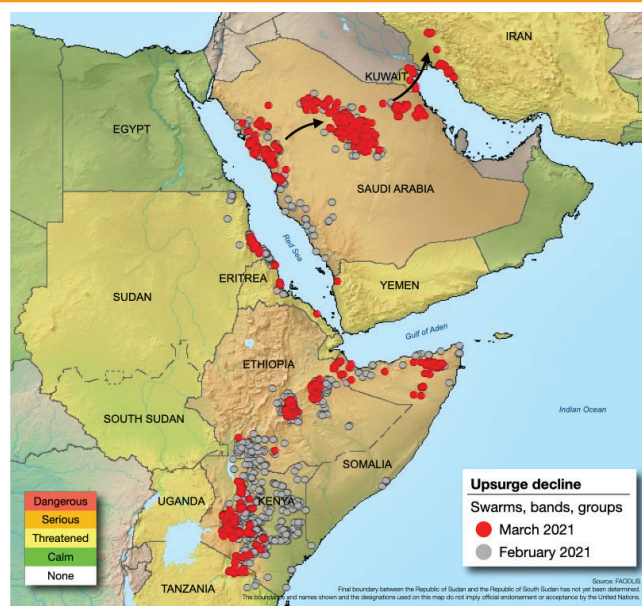
**SITUATION.** Swarms remain immature and decline due to control in **Ethiopia** (13 366 ha treated) and **Kenya** (1 184 ha); more swarms form in NE and NW **Somalia** (12 396 ha); mature swarm remnants, hatching and small bands form in northeast **Tanzania** (236 ha). On the Red Sea coast, hatching and hopper groups form in **Eritrea** (100 ha), and swarm laying, hatching and bands form in **Sudan** (7 437 ha). Adult groups laying, hatching and bands form in **Saudi Arabia** (50 120 ha) interior; few mature swarms invade **Kuwait**; scattered adults in **Egypt** and **Yemen**.

**FORECAST.** Immature swarms decline further in **Kenya**, **Ethiopia** and **Somalia** unless rains arrive to cause swarms to mature and lay, causing small bands to form in late April and May; more hatching and band formation in **Saudi Arabia** interior but may be limited by unusually hot, dry conditions, yet immature groups and small swarms could still form in May; bands, adult groups and perhaps small swarms form on central coast of **Sudan** and move inland; adults move from coast to interior in **Yemen**.

### EASTERN REGION: CALM

**SITUATION.** Few mature swarms invade southwest **Iran** (1 521 ha treated) from Arabia.

**FORECAST.** Hatching and band formation in southwest **Iran**; small-scale breeding in southern **Iran** and southwest **Pakistan** if it rains.



### Upsurge begins to decline

The current upsurge showed signs of significant decline during March as Desert Locust swarms continued to decrease in Kenya, Ethiopia and Somalia due to ongoing control operations and poor rainfall. Swarms remained immature, waiting for the spring rains that are required for maturation and egg laying. While this may still occur in April, below-normal rainfall expected this spring would limit breeding to parts of northern Kenya and southern Ethiopia at a much lower scale than last year. If this is followed by poor rainfall this summer in northeast Ethiopia, then the Desert Locust situation should return to normal. Limited breeding occurred in northeast Tanzania from remnants of earlier swarms. Although winter-bred infestations declined along both side of the Red Sea, late hatching and hopper band formation occurred in Sudan. More importantly, widespread hatching and hopper band formation took place in the interior of Saudi Arabia where control operations combined with earlier than normal dry and hot conditions should be able to reduce these infestations. In addition, strong winds carried a few small mature swarms to Kuwait and southwest Iran. This could lead to hatching and band formation in southwest Iran during April and May. The situation remained calm in other regions and no significant developments are expected.

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.

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## Weather & Ecological Conditions in March 2021

**Some rain fell in northern Kenya and southern Ethiopia. Unusually high temperatures occurred in the spring breeding areas of the interior of Saudi Arabia.**

### WESTERN REGION

Very little rain fell in the region during March. In Algeria, light showers fell in the northwest near Bechar, in parts of the central Sahara in Algeria near In Salah, and in the Hoggar Mountains where runoff could occur on its edges that may lead to favourable breeding conditions in some places near Tamanrasset and Illizi. In Morocco, vegetation was green along the southern side of the Atlas Mountains in the Draa and Ziz-Ghris valleys but soil moisture remained dry.

### CENTRAL REGION

In East Africa, light to moderate rains fell at times during the second half of March in the northern counties of Marsabit and Turkana in Kenya and in southern SNNP and Oromia regions of Ethiopia, including the Rift Valley, the Ahmar Mountains and Harar Highlands. Annual vegetation became green along the eastern escarpment of these areas, leading to the eastern lowlands. Vegetation was drying out along both sides of the Red Sea. Nevertheless, breeding conditions remained favourable on the central and southern coast of the Red Sea in Sudan as well as near irrigated areas in the Nile Valley. In Eritrea, ecological conditions were favourable for breeding on the central coast early in the month but were drying out on the northern coast. In Yemen, conditions were drying out along the coastal plains of the Red Sea and Gulf of Aden. Although no significant rain fell in the interior of Saudi Arabia, breeding conditions remained favourable between Riyadh and Hail from previous rains. Daytime temperatures were much higher than normal, accompanied at times by strong southerly winds and blowing dust, especially on 23–25 March.

### EASTERN REGION

Light to moderate rain fell at times during the first half of March in some coastal and subcoastal areas of southwest Iran. During the second half of March, light to moderate showers fell in the interior of Baluchistan, Pakistan near Khuzdar and Nushki. Consequently, ecological conditions could become favourable for breeding in southwest Iran and in parts of the interior of Baluchistan. Elsewhere, dry conditions prevailed in the spring breeding areas.



## Area Treated

Control operations declined in March, treating 86 360 ha, compared to 249 823 ha in February.

Eritrea	100 ha
Ethiopia	13 366 ha
Iran	1 521 ha
Kenya	1 184 ha
Kuwait	no details
Saudi Arabia	50 120 ha
Somalia	12 396 ha
Sudan	7 437 ha
Tanzania	236 ha



## Desert Locust Situation and Forecast

### WESTERN REGION

#### MAURITANIA

##### • SITUATION

No locusts were reported during March.

##### • FORECAST

*No significant developments are likely.*

#### MALI

##### • SITUATION

No locusts were reported during March.

##### • FORECAST

*Low numbers of adults are likely to persist in parts of the Adrar des Iforas. No significant developments are likely.*

#### NIGER

##### • SITUATION

No locusts were reported during March.

##### • FORECAST

*Isolated locusts are likely to persist in parts of the Air Mountains and the Tamesna Plains.*

#### CHAD

##### • SITUATION

No locusts were reported during March.

##### • FORECAST

*No significant developments are likely.*

#### SENEGAL

##### • SITUATION

No reports were received during March.

##### • 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 March, scattered solitary adults were maturing near irrigated areas in the Adrar Valley (2753N/0017W) of the Central Sahara. No locusts were seen in the northwest between Beni Abbes (3011N/0214W) and Bechar (3135N/0217W) and in the south to the west of Tamanrasset (2250N/0528E).

• FORECAST

*Small-scale breeding is likely to occur in the Adrar Valley.*

**MOROCCO**

• SITUATION

During March, isolated mature solitary adults were present in the spring breeding areas along the southern side of the Atlas Mountains between Guelmim (2859N/1003W) and Zagora (3019N/0550W) in the Draa Valley, south of Erfoud (3128N/0410W) in the Ziz-Ghris Valley, and in a few places towards the northeast near Bouarfa (3232N/0159W). No surveys were carried out in the Western Sahara.

• FORECAST

*Small-scale breeding will cause a slight increase in locust numbers in the Draa and Ziz-Ghris valleys.*

**LIBYA**

• SITUATION

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

• FORECAST

*No significant developments are likely.*

**TUNISIA**

• SITUATION

No locusts were reported during March.

• FORECAST

*No significant developments are likely.*

**CENTRAL REGION**

**SUDAN**

• SITUATION

During the first half of March, adult groups and swarms continued laying eggs on the Red Sea coast in Tokar Delta (1827N/3741E) as well as to the north and south that supplemented earlier laying during the last decade of February. Hatching and band formation occurred from the second week onwards and, by the end of the month, some hoppers had reached third instar. Control teams treated 7 437 ha of which 7 000 ha were by air. Elsewhere, scattered immature and mature solitary

and gregarious adults were seen on the coast between Suakin (1906N/3719E) and Karora (1745N/3820E) and in the northeast along Wadi Oko/Diib north of Tomala (2002N/3551E). In the interior, scattered mature solitary adults were present along the Atbara River and in the Nile Valley between Shendi (1641N/3322E) and Ed Debba (1803N/3057E).

• FORECAST

*A few more hopper groups and bands are likely to form in early April from late egg-laying near Tokar Delta. Fledging will commence about mid-April, giving rise to groups of immature adults and perhaps a few small swarms. As vegetation dries out, they are expected to move inland to the Atbara River and Nile Valley.*

**ERITREA**

• SITUATION

During the first week of March, hatching occurred on the Red Sea coast south of Mehimet (1723N/3833E) and hoppers formed early instar groups. Further south on the central coast, mid-instar hopper groups were present near Wekiro (1548N/3918E) from earlier breeding while late instar hopper groups were seen at mid-month on the southern coast near Idd (1357N/4138E). Ground teams treated 100 ha.

• FORECAST

*Fledging is expected to occur during the first half of April along the Red Sea coast where a few small groups of immature adults could form as vegetation dries out.*

**ETHIOPIA**

• SITUATION

During March, swarms persisted in Oromia region where they remained immature due to a lack of rainfall. Most of the swarms were concentrated east of the Rift Valley in the Ahmar Mountains north of Bale Robe (0707N/4000E) and the Harar Highlands south of Dire Dawa (0935N/4150E). No locusts were seen further south after the second week when immature swarms were present in southern Oromia near Arero (0445N/3849E) and in SNNP west of Konso (0520N/3726E). By the end of the month, the number and sizes of swarms had declined. Control operations also declined as fewer targets were present, treating 13 366 ha in March of which 12 577 were by air.

• FORECAST

*Additional rainfall is needed to allow current swarms to mature and lay eggs in eastern and southern Oromia and southern SNNP. This may occur during the first half of April; otherwise, only a few small immature swarms are likely to persist, and locust infestations should continue to decline.*

**DJIBOUTI**

• SITUATION

During March, no locusts were seen during surveys carried out in coastal and interior areas of the northern regions of

Tadjourah and Obock, on the coastal plains east of Djibouti (1134N/4309E), and in the southern regions of Ali Sabieh and Dikhil.

• **FORECAST**

*There remains a low risk of a few swarms appearing in the south at times from adjacent areas of Ethiopia and northwest Somalia.*

## **SOMALIA**

• **SITUATION**

During March, a few hopper bands persisted on the northwest coastal plains in the first week while a greater number of bands were seen in the northeast between Erigavo (1040N/4720E) and Iskushuban (1017N/5014E) until mid-month. As the bands fledged, immature swarms formed in both areas. Swarms that formed on the northwest coast moved inland up the escarpment to the plateau towards Boroma (0956N/4313E) where some continued into Ethiopia while the swarms in the northeast generally remain on the escarpment, drifting slightly westwards. There is a risk of a few additional swarms in the inaccessible Cal Miskaad mountains northwest of Iskushuban. Apart from a few swarms that were maturing, the majority of the swarms remained immature during the remainder of the month. Control operations treated 12 396 ha of which 6 234 ha were by air in the north.

• **FORECAST**

*Immature swarms are likely to persist on the northern plateau where they are likely to disperse between Garowe, Iskushuban, Las Anod, Erigavo, Burao and Boroma. Any rainfall that occurs would allow the swarms to mature and lay eggs that could give rise to hopper bands in April and May.*

## **KENYA**

• **SITUATION**

During March, swarms remained immature due to a lack of rainfall. Most of the swarms were present in Baringo and Nakuru counties between Mt. Kenya and the Rift Valley and, to a lesser extent, in parts of Samburu and Marsabit counties to the north and Kajiado county south of Nairobi as well as a few other counties. Although many swarms were reported more than once, their total number and size steadily declined. Swarms were reported from 12 counties in the first week compared to three counties by the end of the month. Control operations also declined as fewer targets were present, treating 1 184 ha in March of which 671 ha were by air.

• **FORECAST**

*Additional rainfall is needed to allow any residual swarms to mature and lay eggs in northern areas (Marsabit, Turkana and Samburu). This may occur during the first half of April, giving rise to small hoppers by early May; otherwise, only a few small immature swarms are likely to persist, and locust infestations should continue to decline.*

## **TANZANIA**

• **SITUATION**

During the first week of March, several remnants of swarms matured in the northeast between Mt. Kilimanjaro and the Rift Valley escarpment west of Arusha (0322S/3642E). On the 20<sup>th</sup>, small second instar hopper bands were seen at a few places west of Arusha, suggesting that laying occurred in late February with hatching during the second week of March. On 24 March, an immature swarm presumably from adjacent areas of southern Kenya was seen near the border northwest of Longido (0244N/3642E). Ground teams treated 236 ha.

• **FORECAST**

*Undetected breeding may have occurred on a limited scale from west of Arusha to Mt. Kilimanjaro where small hopper bands may form. Fledging is likely to take place during the third week of April that could give rise to groups of immature adults and perhaps a few small swarms, which are likely to move northwards.*

## **SOUTH SUDAN**

• **SITUATION**

No locusts were reported during March.

• **FORECAST**

*There remains a low risk that a few small swarms from adjacent areas of Kenya and southwest Ethiopia could reach Eastern Equatoria.*

## **UGANDA**

• **SITUATION**

No locusts were reported during March.

• **FORECAST**

*There remains a low risk that a few small swarms from adjacent areas of Kenya could reach Karamoja in the east.*

## **EGYPT**

• **SITUATION**

During March, isolated maturing solitary adults persisted at one place in the southeast near the Sudan border along Wadi Diib to the west of Abu Ramad (2224N/3624E). No locusts were present elsewhere along the coast and in subcoastal areas to El Sheikh El Shazly (2412N/3438E).

• **FORECAST**

*Locust numbers will decline further along the Red Sea coast in the southeast and no significant developments are likely.*

## **SAUDI ARABIA**

• **SITUATION**

During March, hopper groups and bands declined on the northern Red Sea coast between Thuwal (2215N/3906E) and Al Wajh (2615N/3627E) due to control operations and as they fledged to form immature groups that moved to the spring breeding areas of the interior. There, groups of mature adults laid eggs between Hail (2731N/4141E) and Riyadh (2439N/4642E) as well as further east near



Qaryat Al Ulya (2733N/4742E). Hatching and band formation commenced after the first week near Gassim (2621N/4358E) and, to a lesser extent, Hail. Control operations treated 50 120 ha of which 2 500 ha were by air.

• FORECAST

*Locust infestations will decline further on the Red Sea coastal. In the spring breeding areas, hatching and band formation will continue during April from south of Al Jawf and Tabuk to nearly Riyadh. New hatching and band formation are expected between Al Hofaf and Kuwait. Unusually dry and hot conditions may limit breeding in both areas. Nevertheless, immature groups and small swarms could start to form by the end of the forecast period.*

## YEMEN

• SITUATION

During the week of March, low numbers of immature and mature solitary adults were scattered along the Red Sea coastal plains between Suq Abs (1600N/4312E) and Bajil (1458N/4314E). An immature swarm was reported on the 5<sup>th</sup> most likely originating in areas that could not be accessed. During the second half of the month, immature and mature solitary adults were scattered along the southern coast mainly between Am Rija (1302N/4434E) and Zinjibar (1306N/4523E) and, to a lesser extent, near Ahwar (1333N/4644E) and Mayfa'a (1416N/4735E).

• FORECAST

*Adults that persist along the Red Sea and Gulf of Aden coasts may concentrate as vegetation dries out and form small groups. Scattered adults are perhaps a few small groups are likely to appear in the interior between Marib and Wadi Hadhramaut.*

## OMAN

• SITUATION

During March, no locusts were seen in the interior and coastal areas of the north and in the Dhofar region of the south.

• FORECAST

*Small-scale breeding may occur in the northern interior and on the Batinah coast if rains fall.*

## KUWAIT

• SITUATION

On 24 March, mature groups and swarmlets first appeared in the south and rapidly moved northwards on strong southerly winds through Kuwait City and Al-Sulaibiya farms (2916N/4748E) to Abdali farms (3004N/4741E) in the north. Control operations were carried out on 24–27 March.

• FORECAST

*A few adult groups could appear from the south during periods of strong southwesterly or southerly winds.*

## BAHRAIN, D.R. CONGO, IRAQ, ISRAEL, JORDAN, LEBANON, PALESTINE, QATAR, SYRIA, TURKEY, AND UAE

• FORECAST

*No significant developments are likely.*

## EASTERN REGION

### IRAN

• SITUATION

During March, isolated immature and mature solitary adults were seen northeast of Bushehr (2854N/5050E) in a few subcoastal areas. On 25–26 March, several mature adult groups and a few small mature swarms from adjacent areas of Kuwait and Saudi Arabia arrived on the coast west of Bushehr during two days of very strong southwesterly and southerly winds. Some of the swarms were seen further inland to the north in Khuzestan Province near Dezful (3224N/4824E) and the foothills of the Zagros Mountains. One group was copulating on the coast. Ground teams treated 1 521 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

*Hatching and band formation is likely to occur during the second half of April on the southwest coast near Bushehr and in a few coastal and inland areas of Khuzestan. Low numbers of adults are likely to be present in a few areas along the Hormozgan and Sistan-Baluchistan coast and in the Jaz Murian Basin where they will breed on a small scale in areas that receive rainfall.*

### PAKISTAN

• SITUATION

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

• FORECAST

*Low numbers of adults are likely to appear and breed on a small scale in areas of recent rain near Khuzdar and Nushki. This could extend to other areas along the coast and interior of Baluchistan if more rains fall. No significant developments are likely.*

### INDIA

• SITUATION

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

• FORECAST

*No significant developments are likely.*

### AFGHANISTAN

• SITUATION

No locust reports were received during March.

• 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 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)



## 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 plagues only: Benin, Burkina Faso, Cameroon, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Nigeria, Sierre Leone and Togo

### Central

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

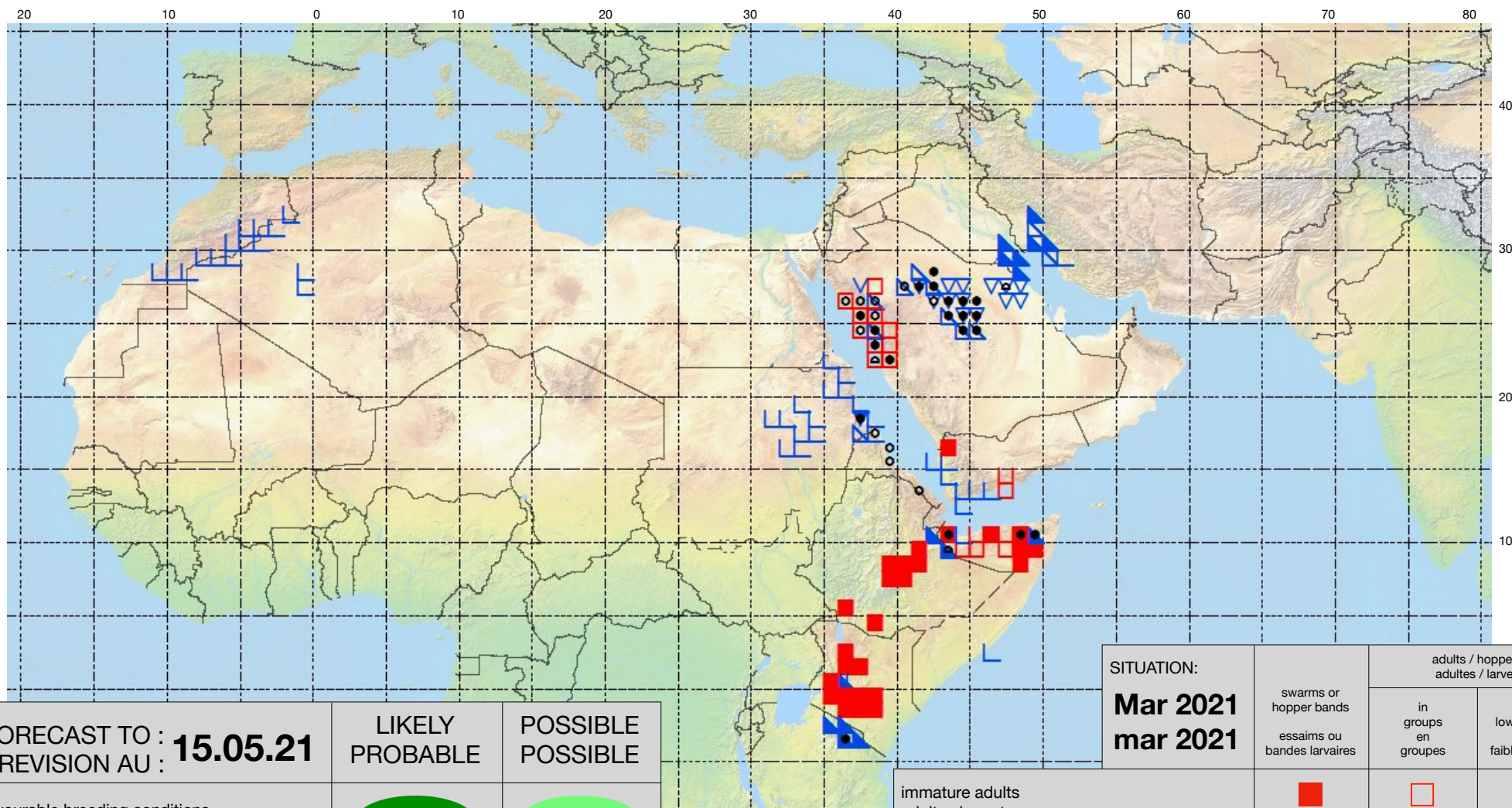



























# Desert Locust Summary

## Criquet pèlerin – Situation résumée

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FORECAST TO : PREVISION AU : <b>15.05.21</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: <b>Mar 2021 mar 2021</b>	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)	