



## Desert Locust Bulletin

General situation during February 2021  
Forecast until mid-April 2021

### WESTERN REGION: CALM

**SITUATION.** Control operations against adults in **Algeria** (20 ha), isolated adults in **Niger**, and limited breeding in **Morocco**.

**FORECAST.** Small-scale spring breeding south of the Atlas Mountains in **Morocco**; isolated locusts in northern **Niger** and central **Algeria**.

### CENTRAL REGION: THREAT

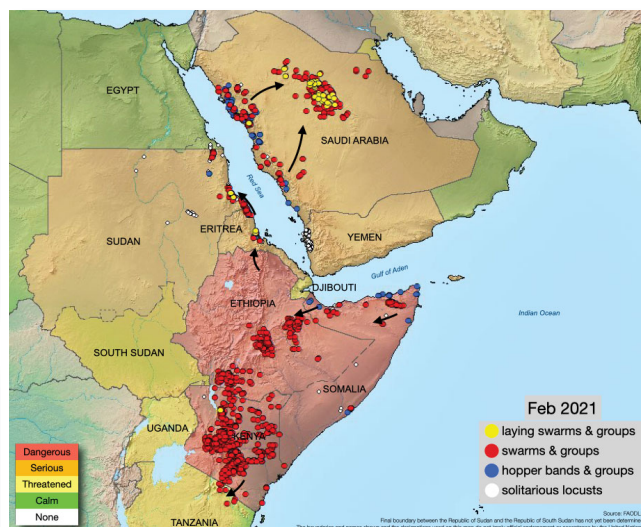
**SITUATION.** Swarm invasion of Kenya declines; immature swarms persist in **Ethiopia** (73 838 ha treated) and **Kenya** (11 349 ha); a few swarms cross to northeast **Tanzania** (638 ha); hopper bands fledge and swarms form in northern **Somalia** (21 143 ha). On the Red Sea coast, hopper and adult groups in **Eritrea** (1 500 ha), hopper bands and swarms in **Sudan** (16 781 ha), bands fledge in **Saudi Arabia** (104 775 ha) and swarms arrive in the interior to lay; scattered adults in **Egypt** (30 ha) and **Yemen**.

**FORECAST.** Swarms to mature and lay in areas of rain in southern **Ethiopia** and **Kenya**, giving rise to small to moderate scale hopper bands; swarms to persist on plateau in northern **Somalia** and may reach eastern Ethiopia; limited breeding on Red Sea coast of **Saudi Arabia** but widespread hatching and band formation in the interior; small groups form on central coast in **Eritrea**; hatching and band formation on central coast of **Sudan**, and small groups and swarms move inland; local breeding on Red Sea coast in **Yemen**.

### EASTERN REGION: CALM

**SITUATION.** No locusts reported.

**FORECAST.** Small-scale breeding will commence with the onset of the spring rains in southern **Iran** and southwest **Pakistan**.



### Immature swarms persist in East Africa

Control operations continued in Ethiopia and Kenya against swarms that remained immature throughout February. Good progress has been achieved, particularly in Kenya where the earlier swarm invasion from the north ceased and remaining swarms were smaller and less numerous than one year ago. Nevertheless, a few swarms crossed into northeast Tanzania and cross-border aerial control was carried out. Showers that fell during the last week of February may allow swarms to mature rapidly in northern Kenya and southern Ethiopia and lay eggs that could hatch in late March, causing small hopper bands to form. However, spring breeding is likely to be limited as control operations continue to reduce current infestations and well below-normal rains are forecasted. As expected, an increasing number of new swarms formed in northern Somalia, which are likely to disperse across the northern plateau. In the Red Sea winter breeding areas, adult groups and swarms formed mainly in Saudi Arabia and, to a lesser extent, in Eritrea and Sudan. Those in Saudi Arabia moved inland to the vast spring breeding areas where early rains combined with unusually warm temperatures allowed laying to start about one month earlier than normal, which is expected to cause widespread hatching and band formation. The situation was calm in the other regions.

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 February 2021

**Good rains and unusually warm temperatures occurred in the spring breeding areas of the interior of Saudi Arabia. Some rain fell in northern Kenya and southern Ethiopia.**

### WESTERN REGION

No significant rain fell in the region during February for the fourth consecutive month. Consequently, vegetation was drying out in on the Tamesna Plains and in the Air Mountains of northern Niger while it remained dry elsewhere in the northern Sahel. In northwest Africa, small pockets of green vegetation were present in Morocco, mainly in the Adrar Settouf of the Western Sahara and in the Draa Valley where breeding conditions were improving.

### CENTRAL REGION

In East Africa, light to moderate rains fell during a few days in the last decade of February from north of Mt. Kenya to the central Rift Valley in Ethiopia, including Samburu, western Marsabit, eastern Turkana counties in northern Kenya and reaching as far north as Adama in Ethiopia. Consequently, breeding conditions are likely to improve in these areas. Although no rains fell in northern Somalia, vegetation remained generally green on the northern plateau from the heavy rains of Cyclone Gati last November but was drying out on the northwest coast and escarpment. In the winter breeding areas along both sides of the Red Sea, light showers fell at times during the first decade on the southern coast of Saudi Arabia near Jizan and on the Tihama of Yemen, extending to the southern coast of Eritrea. Light rains also fell further north on the coast of Saudi Arabia between Yenbo and Duba. As a result, ecological conditions remained favourable in these areas as well as on the northern coastal plains in Eritrea and adjacent coastal areas of Sudan to Port Sudan. In the absence of rains, vegetation was drying out in northeast Sudan along Wadi Oko/Diib and adjacent areas in southeast Egypt. In the spring breeding areas of the interior of Saudi Arabia, light rains fell during the first decade between Gassim and Tabuk, and during the second decade in the east near Qaryat Al Ulya and Al Hofaf. These rains combined with warmer than usual temperatures allowed conditions to become favourable for breeding at least one month earlier than in most years. Dry conditions prevailed in the interior of Yemen. In Oman, light rains fell at times in central areas between Marmul and Duqm, but conditions remained dry.

### EASTERN REGION

Light to moderate rain fell at times during the second decade on the southwest coast of Iran near Bushehr while lighter rainfall occurred further east towards Bander-e-

Lenghen. Light to moderate rains also fell in the Jaz Murian Basin near Sowlan. Consequently, ecological conditions could start to improve for breeding, but more rainfall is likely to be required. Dry and relatively cool conditions prevailed in the spring breeding areas of Sistan-Baluchistan in southeast Iran and Baluchistan in southwest Pakistan where conditions were unfavourable for breeding.



### Area Treated

Control operations during February treated 230 074 ha compared to 316 414 ha in January.

Algeria	20 ha
Egypt	30 ha
Eritrea	1 500 ha
Ethiopia	73 838 ha
Kenya	11 349 ha
Saudi Arabia	104 775 ha
Somalia	21 143 ha
Sudan	16 781 ha
Tanzania	638 ha



### Desert Locust Situation and Forecast

#### WESTERN REGION

##### MAURITANIA

###### • SITUATION

No locusts were reported during February.

###### • FORECAST

*No significant developments are likely.*

##### MALI

###### • SITUATION

No locusts were reported during February.

###### • FORECAST

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

##### NIGER

###### • SITUATION

During February, mainly isolated immature solitarious adult mixed with a few mature adults were scattered on the Tamesna Plains between In Gall (1651N/0701E) and the Tazerzait Plateau (1832N/0449E), along the western side of the Air Mountains between Agadez (1658N/0759E) and Arlit (1843N/0721E), in the Air Mountains north of Iferouane (1905N/0824E) and east and south of Timia (1809N/0846E), and on the central plains north of Tasker (1507N/104140E).

• FORECAST

*Isolated locusts will persist in parts of the Air Mountains and the Tamesna Plains. Limited breeding could occur on a small scale as temperatures warm up and if rains fall.*

## CHAD

• SITUATION

No locusts were reported during February.

• FORECAST

*No significant developments are likely.*

## SENEGAL

• SITUATION

No locusts were reported during February.

• 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 February, scattered mature solitary adults persisted in the Adrar Valley (2753N/0017W) of the Central Sahara. Ground teams treated mature solitary adults that were copulating on 20 ha to the west of In Salah (2712N/0229E).

• FORECAST

*Small-scale breeding could occur in the Adrar Valley and nearby areas once temperatures warm up and if rains occur.*

## MOROCCO

• SITUATION

During February, low numbers of mature solitary adults were present and copulating in a few places of the Draa Valley between Zag (2800N/0920W) and Zagora (3019N/0550W). In the Western Sahara, isolated mature solitary adults were seen in the Adrar Settouf between Tichla (2138N/1453W) and Bir Gandouz (2136N/1628W) near the Mauritania border.

• FORECAST

*Small-scale breeding will cause a slight increase in locust numbers in the Draa Valley. Low numbers of adults are likely to persist in parts of the Western Sahara.*

## LIBYA

• SITUATION

No reports were received during February.

• FORECAST

*No significant developments are likely.*

## TUNISIA

• SITUATION

No locusts were reported during February.

• FORECAST

*No significant developments are likely.*

## CENTRAL REGION

### SUDAN

• SITUATION

During February, late instar hopper bands were present in the northeast along Wadi Oko near Tomala (2002N/3551E) in the first week while groups of late instar hoppers and immature adults were seen further north in Wadi Diib near Sufiya (2119N/3613E) until mid-month. On the southern coast, fourth and fifth instar hopper bands, mixed with a few immature adult groups and swarms, were present during the first half of the month between Aiterba (1753N/3819E) and the Eritrea border. During the last decade, an increasing number of immature and mature groups and swarms were seen between Tokar (1827N/3741E) and Suakin (1906N/3719E), including copulating near Khor Ashat (1841N/3724E) and in Tokar Delta. One maturing swarm was seen on the western side of the Red Sea Hills near Haiya (1820N/3621E) on the 26<sup>th</sup>. In the interior, scattered mature solitary adults were present in the Nile Valley near Shendi (1641N/3322E) and north of Dongola (1910N/3027E) while scattered immature and mature solitary adults were seen along the Atbara River. Control teams treated 16 781 ha of which 12 960 ha were by air.

• FORECAST

*Adult groups and swarms may continue to lay along the Red Sea coast between Suakin and Tokar where hatching and band formation will occur in March. There is a risk that some groups and small swarms will move inland to the Atbara River and Nile Valley. This could be supplemented by additional groups and small swarms arriving from the coast of Eritrea.*

### ERITREA

• SITUATION

During February, third to fifth instar hopper groups were present on the northern coast of the Red Sea near Mehimet (1723N/3833E) and fledglings were forming immature adult groups. At mid-month, breeding was in progress further south near Wekiro (1548N/3918E) and the Akbanazouf Plain (1555N/3910E) where adult groups were laying, and hatchlings were forming groups. A mature swarm was seen on the 8<sup>th</sup> on the coast near Foro (1515N/3937E) and an immature swarm was seen on the eastern escarpment near Ginda (1527N/3905) on the 16<sup>th</sup>. These most likely originated from adjacent areas of northern Ethiopia. No locusts were seen near Mehimet at the end of the month. Ground teams treated 1 500 ha.

• **FORECAST**

*Hopper groups are expected to form near Wekiro that will start to fledge in April.*

**ETHIOPIA**

• **SITUATION**

During February, numerous immature swarms persisted in Oromia and SNNP regions, concentrating mainly in the Harar Highlands (East Harerghe zone), the Bale Mountains (Arsi and Bale zones), and the southern Rift Valley (South Omo, Konso, and Borena zones). There was a slight southward shift in populations with more swarms in the south near the Kenya border from west of Lake Stephanie to Mega (0403N/3815E) in the east, and in the Rift Valley as far north as Arba Minch (0602N/3733E). Cross-border movements of swarms were reported in the south near Kenya early in the month while an increasing number of swarms from northwest Somalia were appearing near Jijiga (0922N/4250E) and Dire Dawa (0935N/4150E) at the end of the month. Control operations treated 73 838 ha of which 69 188 ha were by air.

• **FORECAST**

*Swarms are expected to mature and lay eggs mainly in the south (South Omo, Konso, Borena) and the southern Rift Valley where rain has already fallen or where it falls during March. Additional swarms from northern Somalia may appear near Dire Dawa where breeding is likely if rains fall. Breeding may also occur in the Harar Highlands. Consequently, hopper bands will form by late March and throughout April.*

**DJIBOUTI**

• **SITUATION**

During February, no locusts were seen during surveys carried out in coastal and interior areas of Tadjourah and Obock regions.

• **FORECAST**

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

**SOMALIA**

• **SITUATION**

During February, breeding continued on the northwest coast (Somaliland) and in the northeast (Puntland) where an increasing number of immature swarms formed as hopper bands fledged. By the end of the month, a few late instar hopper bands remained on the northwest coast near Djibouti but most of the infestations had declined as hoppers fledged and swarms moved up the escarpment to the northern plateau between Hargeisa (0931N/4402E) and Burco (0931N/4533E). In Puntland, late instar hopper bands were still present on the coast from Lasqoray (1109N/4811E) to east of Bosaso (1118N/4910E), and inland to the northwest of Iskushuban (1017N/5014E). Newly formed immature swarms were seen on the plateau

between Iskushuban, Erigavo (1040N/4720E) and Garowe (0824N/4829E). In central and southern region, no locusts were reported except for a few infestations on the coast north of Mogadishu (0202N/4520E). The few remaining swarms probably moved to Kenya during the first half of February. Control operations treated 21 143 ha of which 7 387 ha were by air in the north.

• **FORECAST**

*More immature swarms will form in Puntland and, to a lesser degree, in Somaliland. The swarms are likely to move to the northern plateau where some may disperse in a westerly direction. Any rainfall that occurs would allow the swarms to mature and lay eggs from late March onwards, giving rise to hatching and hopper band formation in April and May.*

**KENYA**

• **SITUATION**

During the first week of February, numerous small but highly mobile immature swarms were scattered across 24 northern, central and southern counties from Marsabit and the Ethiopia border in the north to Kajiado and the Tanzania border in the south. A single swarm was often reported up to a half dozen times in one day. Fortunately, the peak of the swarm invasion from the north had passed early in the month and thereafter very few immature swarms arrived from adjacent areas of Somalia and Ethiopia. During the remainder of the month, small immature swarms continued to be reported, mainly in central counties and some near crops and inhabited areas, but their number steadily declined due to control operations that treated 11 349 ha of which 6 067 were by air. By the end of the month, only a few small swarms less than 100 ha in size remained in some central areas.

• **FORECAST**

*Rainfall during the last week of February may have been sufficient for some swarms to mature and lay in Marsabit, Samburu and Turkana counties, which would give rise to hatching and band formation from late March onwards. However, additional rains are likely to be required during March, mainly in the north and, to a lesser extent, in some central areas where breeding is most likely to take place. If so, hatching and band formation can be expected in April. The scale of any breeding this year will be substantially less than in 2020.*

**TANZANIA**

• **SITUATION**

During February, a small immature swarm crossed the border from southern Kenya into Mwagna district southeast of Mt. Kilimanjaro on the 15<sup>th</sup>. In the following days, it moved southwest to Manyara region near Landanai (0404S/3708E) on the 19<sup>th</sup>. In Arusha region, at least one immature swarm crossed the border with reports near Longido (0244N/3642E) on the 20<sup>th</sup>, the southwestern side of Mt.

Kilimanjaro on the 24<sup>th</sup> near Rongai (0307N/3703E), north of Arusha (0322S/3642E). This was followed by reports of a maturing swarm west of Mt. Meru on the 27<sup>th</sup> and near Longido on the 28<sup>th</sup>. Cross-border aerial control operations treated 638 ha on 23–24 February.

• **FORECAST**

*Small residual immature and maturing swarms are likely to persist in a few places in the northeast near the Kenya border (Kilimanjaro, Manyara, and Arusha regions). As seasonal southerly winds become established over these areas, most of the swarms should move north back into Kenya; however, there is a low risk that any remaining adults could lay eggs in moist, sandy areas.*

## **SOUTH SUDAN**

• **SITUATION**

No locusts were reported during February.

• **FORECAST**

*There remains a low to moderate 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 February.

• **FORECAST**

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

## **EGYPT**

• **SITUATION**

During February, low numbers of maturing solitarius adults were scattered along Wadi Diib in subcoastal areas of the Red Sea in the southeast near the Sudan border where breeding previously occurred, and ground teams treated 30 ha. Isolated immature adults were seen on the coast between Halaib (2213N/3638E) and Abu Ramad (2224N/3624E). No locusts were present elsewhere along the coast to Marsa Alam (2504N/3454E), in subcoastal areas west of Berenice (2359N/3524E), and near Lake Nasser in the Tushka (2247N/3126E) and Abu Simbel (2219N/3138E) areas.

• **FORECAST**

*Locust numbers will decline further along the Red Sea coast in the southeast as vegetation dries out.*

## **SAUDI ARABIA**

• **SITUATION**

During February, hopper groups and bands decreased on the central and southern coastal plains of the Red Sea between Lith (2008N/4016E) and Jizan (1656N/4233E) as immature adult groups continued to form and move inland to the spring breeding areas between Riyadh (2439N/4642E) and Hail (2731N/4141E) where some groups may have

already arrived in late January. On the north coast, hopper groups and bands increased between Thuwal (2215N/3906E) and Al Wajh (2615N/3627E), and a few mature groups were seen laying on the northern coast near Bader (2346N/3847E). An increasing number of immature adult groups and a few swarms formed and moved inland to the spring breeding areas where laying occurred during the second half of the month within a large area of about 500 km by 200 km from northwest of Riyadh and to northwest of Hail. A few groups continued east and reached Qaryat Al Ulya (2733N/4742E). Control operations treated 104 775 ha of which 13 300 ha were by air.

• **FORECAST**

*Locust infestations are expected to decline on the Red Sea coastal plains as adult groups and small swarms form and move to the interior. Nevertheless, limited hatching may cause hopper groups and small bands to form near Yenbo. In the spring breeding areas, hatching will occur throughout March, causing hopper groups and bands to form within a large area from south of Al Jawf and Tabuk to nearly Riyadh.*

## **YEMEN**

• **SITUATION**

During February, low numbers of immature and mature solitarius adults were scattered along the Red Sea coastal plains between Suq Abs (1600N/4312E) and Bayt Al Faqih (1430N/4317E).

• **FORECAST**

*Small-scale breeding is likely to occur in a few limited areas on the Red Sea coastal plains where rains have fallen recently. Unless further rains fall, breeding will be limited, and remaining adults are likely to concentrate as vegetation dries out and form small groups. Scattered adults are perhaps a few small groups may start to appear in the interior between Marib and Wadi Hadhramaut.*

## **OMAN**

• **SITUATION**

During February, no locusts were seen in the northern interior from Buraimi (2415N/5547E) to Ibra (2243N/5831E), and on the Batinah coast.

• **FORECAST**

*Small-scale breeding is likely to commence in the northern interior and on the Batinah coast with the onset of the spring rains.*

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

• **FORECAST**

*No significant developments are likely.*

## EASTERN REGION

### IRAN

- SITUATION

During February, no locusts were seen or reported along the southern coast and in subcoastal areas between Iraq and Pakistan, the interior of Sistan-Baluchistan, and the northeastern province of South Khorasan.

- FORECAST

*Low numbers of adults are likely to be present in a few areas along the southern coast where they will slowly mature and start to breed on a small scale with the onset of the spring rains.*

### PAKISTAN

- SITUATION

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

- FORECAST

*Low numbers of adults may appear in coastal areas of Baluchistan and start to breed on a small scale with the onset of the spring rains. No significant developments are likely.*

### INDIA

- SITUATION

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

- FORECAST

*No significant developments are likely.*

### AFGHANISTAN

- SITUATION

No locust reports were received during February.

- 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. See [www.fao.org/locusts](http://www.fao.org/locusts) for more details.

### New eLocust3 tools

FAO has developed three new free tools for improving Desert Locust survey and control reporting: eLocust3g, eLocust3m, eLocust3w (<http://www.fao.org/ag/locusts/en/activ/DLIS/eL3suite/index.html>). Each tool allows the recording of basic survey and control data in the field while offline that is shared within the country in real time.

### Locust Hub

FAO in partnership with ESRI has developed 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>).

### Condolences

It is with deep regret that we announce the death of the pilot, Patrick Bouzon, from injuries sustained in a crash while undertaking Desert Locust aerial control operations to protect livelihoods in the Oromia region of Ethiopia on 11 February. We would like to extend our profound condolences to his family, friends and colleagues.

### Calendar

- **CRC.** 32<sup>nd</sup> session, Saudi Arabia (13–17 June, 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  
<http://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>

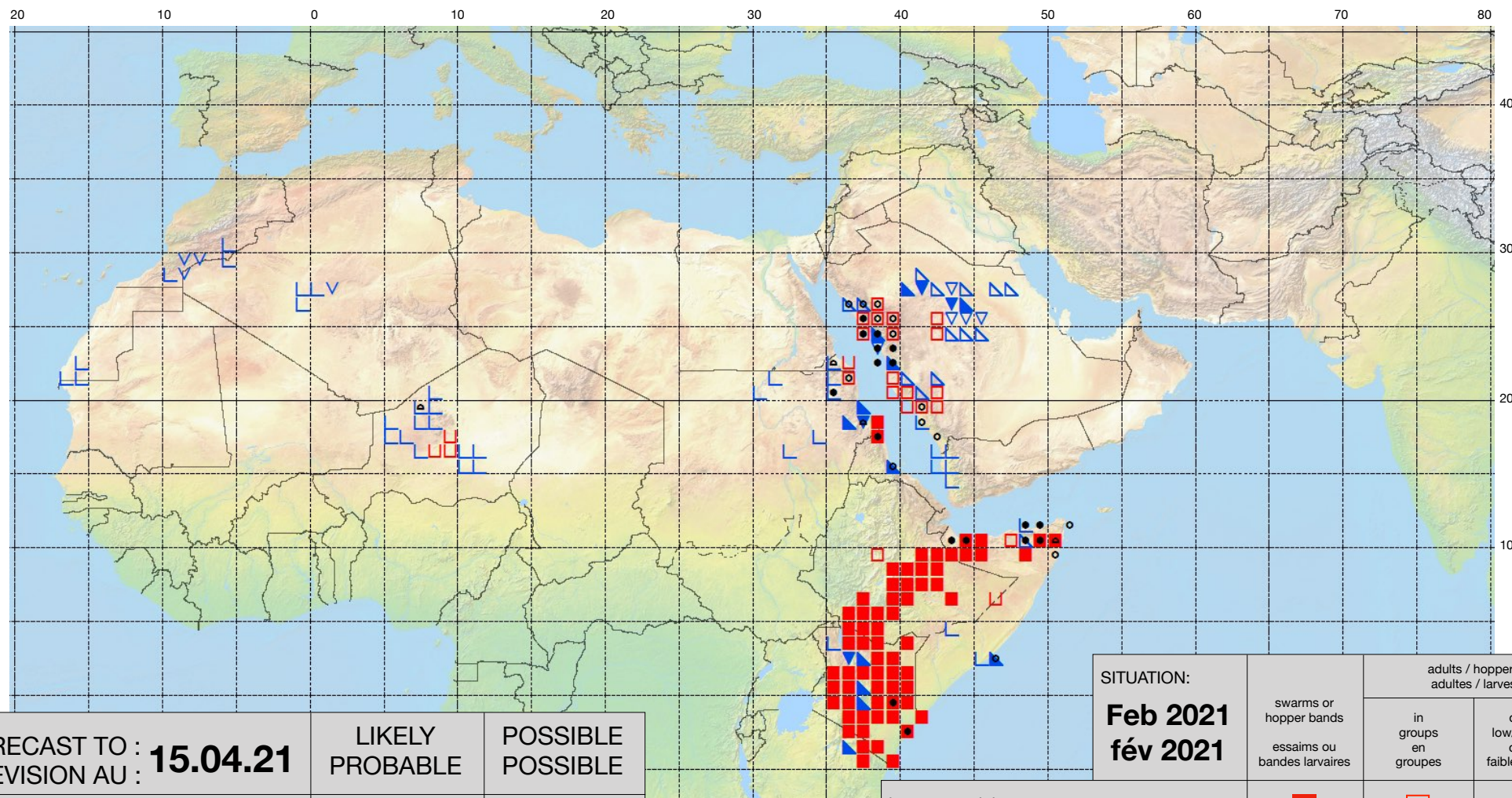





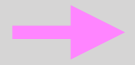





















# Desert Locust Summary

## Criquet pèlerin – Situation résumée

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FORECAST TO : PREVISION AU : <b>15.04.21</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>Feb 2021 fév 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)	