



Desert Locust Bulletin

General situation during February 2022 Forecast until mid-April 2022

WESTERN REGION: CALM

SITUATION. Isolated adults in southern **Algeria**.

FORECAST. Very small-scale breeding is likely to commence in **Morocco** and **Algeria** once temperatures warm up and rains fall. No significant developments expected.

CENTRAL REGION: CALM

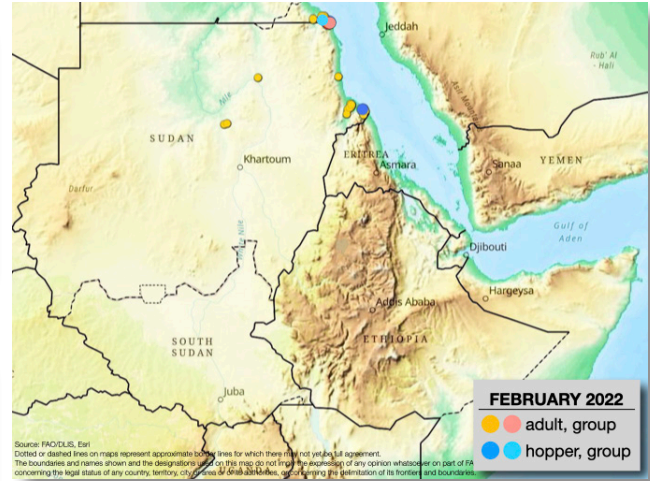
SITUATION. Small hopper and adult groups treated in southeast **Egypt** (1 220 ha). Scattered adults on the Red Sea coast in **Sudan** where limited breeding was detected in only one area. Immature adult groups seen in eastern **Ethiopia** flying southwards. Isolated adults on the **Oman** coast. No locusts reported elsewhere in the region.

FORECAST. Locusts will decline along both sides of the Red Sea where no further rains are expected, causing conditions to dry out in **Egypt, Sudan, Eritrea, Saudi Arabia, and Yemen**. Low numbers of adults may appear in the interior of Saudi Arabia and Yemen, but poor rains are expected to limit spring breeding this year. No significant developments expected.

EASTERN REGION: CALM

SITUATION. No locusts present.

FORECAST. Isolated adults are likely to appear in southeast **Iran** and southwest **Pakistan** where breeding may be limited by poor rainfall. No significant developments expected.



Upsurge ends in the Horn of Africa

The current Desert Locust upsurge has finally ended in the Horn of Africa after more than two years of intensive survey and control operations carried out by ground and air with generous support from the international community. For nearly the second consecutive month, no significant locust infestations have been detected in Djibouti, Eritrea, Ethiopia, Somalia, and Kenya during February. Although rain has not fallen recently and ecological conditions are dry, small groups of immature adults were seen moving southwards in eastern Ethiopia, which suggests that a few residual infestations may still be present. Therefore, surveys and vigilance should be maintained. This year's winter breeding along both sides of the Red Sea and the Gulf of Aden has been very poor due to a lack of rainfall. Consequently, only low numbers of adults were present on the coast of Egypt and Sudan. Ground teams treated small groups of hoppers and adults in southeast Egypt, and isolated breeding occurred on the southern coast in Sudan. Elsewhere, isolated adults were present in southern Algeria and northern Oman. During March and April, low numbers of adults may appear in the spring breeding areas in Morocco, Algeria, the interior of the Arabian Peninsula, southeast Iran, and southwest Pakistan where poor rains are expected to limit breeding this year. Consequently, the situation is expected to remain calm in the coming months.

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 2022

Little rainfall and poor ecological conditions limited winter breeding along both sides of the Red Sea and Gulf of Aden. Dry conditions prevailed in the Horn of Africa.

WESTERN REGION

No significant rain fell in the region during February. Consequently, annual vegetation remained dry except for a few places in the Draa Valley south of the Atlas Mountains in Morocco, near irrigated perimeters in the Adrar Valley of the central Sahara in Algeria, and in a few wadis in the southern Sahara near Tamanrasset. Overall, conditions were not favourable for breeding.

CENTRAL REGION

No significant rain fell in the Horn of Africa as well as in the winter breeding areas along both sides of the Red Sea and Gulf of Aden during February. Consequently, annual vegetation was dry in eastern and southern Ethiopia and northern and central Somalia where conditions were not favourable for breeding. Similarly, the little annual vegetation that was present in some coastal areas of the Red Sea in southeast Egypt, Sudan, Eritrea, Yemen, and Saudi Arabia was drying out and breeding conditions became less favourable.

EASTERN REGION

Very little rain fell in the region during February. Nevertheless, annual vegetation was becoming green in western portions of the Jaz Murian Basin and in a few coastal areas south of Minab in southeast Iran, and in limited areas of southwest Pakistan in the Shooli Valley south of Turbat, in the Turbat Valley, and near Kharan. While these are all key spring breeding areas, ecological conditions still remain primarily unfavourable until more rainfall occurs.



Area Treated

Egypt 1 220 ha



Desert Locust Situation and Forecast

WESTERN REGION

ALGERIA

• SITUATION

During February, isolated mature solitary adults were seen in the southern Sahara at one place west of Tamanrasset (2250N/0528E). No locusts were seen in the Adrar Valley (2753N/0017W) of the central Sahara.

• FORECAST

Very small-scale and limited breeding could occur once temperatures warm up in the central Sahara if rains fall.

CHAD

• SITUATION

No locusts were reported during February.

• forecast

No significant developments are likely.

LIBYA

• 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 locusts may be present and could persist in parts of Timetrine and the Adrar des Iforas.

MAURITANIA

• SITUATION

No locusts were reported during February.

• FORECAST

No significant developments are likely.

MOROCCO

• SITUATION

During February, no locusts were seen during surveys south of the Atlas Mountains from Tan-Tan (2826N/1106W) to Erfoud (3128N/0410W), and in the northern portion of Western Sahara near Smara (2644N/1140W).

• FORECAST

Very small-scale and limited breeding could occur once temperatures warm up in the Draa and Sakia El Hamra valleys as well as in the Adrar Settouf of Western Sahara if rains fall.

NIGER

• SITUATION

No locusts were reported during February.

• FORECAST

Low numbers of adults may be present and could persist in parts of the Air Mountains. No significant developments are likely.

SENEGAL

• SITUATION

No locusts were reported during February.

• FORECAST

No significant developments are likely.

TUNISIA

• 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.

CENTRAL REGION

DJIBOUTI

• SITUATION

During February, no locusts were seen during surveys in coastal and interior areas of Obock and Tadjourah in the north and in the southeast near Ali Sabieh (1109N/4242E).

• FORECAST

No significant developments are likely.

EGYPT

• SITUATION

During February, small groups of fifth instar solitary and *transiens* hoppers were present in the first week on the Red Sea coast to the south of Halaib (2213N/3638E) near the Sudan border as a result of breeding during the past two months. Fledging occurred, giving rise to scattered immature adults and a few small groups. Isolated mature solitary adults were seen further north along the coast towards Abu Ramad (2224N/3624E). No locusts were seen elsewhere in coastal and subcoastal areas near Shalatyn (2308N/3535E) and in the southern interior near Lake Nasser. Ground teams treated 1 220 ha.

• FORECAST

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

ERITREA

• SITUATION

During February, no locusts were seen on the Red Sea coastal plains between Massawa (1537N/3928E) and Sheib (1551N/3903E) on the 1st.

• FORECAST

Isolated locusts may be present in a few places along the northern coastal plains of the Red Sea where numbers will decline as conditions become dry. No significant developments are likely.

ETHIOPIA

• SITUATION

During February, groups of immature adults was seen moving south from Dollo to Korahe zone in eastern Somali region on the 17th that may have continued further south towards Negele (0520N/3935E) and Yabelo (0457N/3812E) in southern Oromia at the end of the month. No locusts were seen during ground and aerial surveys north of the Kenya border in the southern portion of Oromia and SNNPR, including the Rift Valley to Arba Minch (0602N/3733E), and in the Somali region near Dire Dawa (0935N/4150E), Jijiga (0922N/4250E), and further east along the Shebelle River.

• FORECAST

Low numbers of adults and a few small immature groups may be present in parts of southern Oromia and SNNPR to the north of the Kenya border that could start to move northwards in about mid-April.

KENYA

• SITUATION

No locusts were seen or reported during February.

• FORECAST

Low numbers of adults may be present south of the Ethiopia border in northern Mandera, Marsabit, and northeast Turkana counties. No significant developments are likely.

OMAN

• SITUATION

During February, isolated mature solitary adults were seen at one place on the Batinah coast northeast of Rustaq (2323N/5725E). Elsewhere, no locusts were seen on the northern coast, Musandam Peninsula, in the northern interior near Adam (2223N/5731E), Nizwa (2255N/5731E), and Buraimi (2415N/5547E), and in the southern Dhofar between Thumrait (1736N/5401E) and Shehan (1746N/5229E) along the Yemen border.

• FORECAST

No significant developments are likely.

SAUDI ARABIA

• SITUATION

During February, no locusts were seen along the Red Sea coastal plains in the south from Jizan (1656N/4233E) to Qunfidah (1909N/4107E) and on the central and northern coasts from Lith (2008N/4016E) to Duba (2719N/3546E). Locusts were also absent in the southwest interior near Najran (1729N/4408E) and the Yemen border.

• FORECAST

Isolated locusts may be present in a few places along the Red Sea coast where further breeding is unlikely. Consequently, low numbers of adults are likely to move to the interior, but spring breeding is expected to be very limited because of poor rainfall that is forecasted. No significant developments are likely.

SOMALIA

• SITUATION

During February, no locusts were seen during aerial and ground surveys in the northwest (Somaliland) and northeast (Puntland) as well as in central areas near Galkayo (0646N/4725E).

• FORECAST

Low numbers of adults may be present along parts of the northwest coast where breeding is unlikely because of dry conditions.

SUDAN

• SITUATION

During February, very little winter breeding occurred on the Red Sea coast. Despite earlier reports of copulating adults in January, breeding was detected at only one place along the southern coast near Adobana (1810N/3816E) where scattered third instar solitarious hoppers were seen on the 21st. Low numbers of scattered mature solitarious adults were present on the southern coast between Aqiq (1813N/3811E) and Aiterba (1753N/3819E) and in Tokar Delta while scattered immature solitarious adults were present on the northern coast about 10 km south of the Egypt border. No locusts were seen elsewhere on the coast or in subcoastal areas along Wadi Oko/Diib. In the summer breeding areas, scattered mature solitarious adults persisted in a few places of the Bayuda Desert between Wadi Muqaddam and Abu Hamed (1932N/3320E) up to mid-month.

• FORECAST

Locust numbers will decline along the Red Sea coastal plains as conditions become dry. No significant developments are likely.

YEMEN

• SITUATION

No surveys were carried out and no locusts were reported during February.

• FORECAST

Low numbers of adults may be present in a few places along the Red Sea and Gulf of Aden coastal plains where further breeding is unlikely. Consequently, low numbers of adults are likely to move to the interior, but spring breeding is expected to be very limited because of poor rainfall that is forecasted.

BAHRAIN, D.R. CONGO, IRAQ, ISRAEL, JORDAN, KUWAIT, LEBANON, PALESTINE, QATAR, SOUTH SUDAN, SYRIA, TANZANIA, TURKEY, UGANDA, AND UAE

• FORECAST

No significant developments are likely.

EASTERN REGION

AFGHANISTAN

• SITUATION

No locust reports were received during February.

• FORECAST

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.

IRAN

• SITUATION

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

• FORECAST

Isolated adults are likely to appear in coastal areas and the Jaz Murian Basin of the southeast where breeding may be limited by poor rainfall.

PAKISTAN

• SITUATION

During February, no locusts were seen along the southwest coast in Baluchistan from Pasni (2515N/6328E) to Gwadar (2508N/6219E), in interior valleys of Turbat (2600N/6303E) and Panjgur (2658N/6406E), and in northern Baluchistan between Dalbandin (2856N/6430E) and Nushki (2933N/6601E).

• FORECAST

Isolated adults are likely to appear in coastal and subcoastal areas of Baluchistan where breeding may be limited by poor rainfall.



Announcements

Locust warning levels

A colour-coded scheme indicates the seriousness of the current Desert Locust situation:

- **Green** – calm situation (low alert); no threat to crops (*maintain regular monitoring*)
- **Yellow** – cautious situation (moderate alert); potential threat to crops (*increased vigilance, control may be needed*)
- **Orange** – serious situation (high alert); threat to crops (*survey and control must be undertaken*)
- **Red** – dangerous situation (very high alert); significant threat to crops (*intensive survey and control operations must be conducted*)

The scheme is applied to the Locust Watch web page and to the monthly bulletins and updates. It indicates the alert level, perceived risk or threat of current Desert Locust infestations to crops, and appropriate response.

Locust reporting

RAMSES data. Countries should connect to the Internet and backup the RAMSES database whenever data are added or changed. There is no longer the need to send data directly to DLIS.

Bulletins. Affected countries are encouraged to prepare decadal, fortnightly, or monthly bulletins that summarize 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 and faodlislocust@gmail.com). Reports received by the first day 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.

eLocust3 digital tools

In addition to the original eLocust3 tablet, FAO has three free tools for data collection in the field:

- eLocust3m – a smartphone app for regular surveys and control, developed with Plant Village (<http://tiny.cc/eL3m>)
- eLocust3g – a GPS app for emergencies, developed with Garmin (<http://tiny.cc/eLocust3g>)
- eLocust3w – an Internet form for emergencies, developed in Kobo (<http://tiny.cc/eLocust3w>)

The geo-referenced data collected by these tools feed into FAO's global early warning system and are critical for real-time monitoring and planning field operations in each country. [<http://www.fao.org/ag/locusts/en/activ/2573/eL3suite/index.html>]

Standard Operating Procedures (SOPs)

FAO has developed pocket-sized SOPs for use in the field on Desert Locust biology, survey, and control, including instructions on how to use eLocust3 tools, that are available in different languages.

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

Community awareness

As communities have an important role to play in Desert Locust management, FAO has developed:

- Posters – six simple, easy to understand posters, providing basic messaging on pesticide containers, safety measures, pesticide exposure, farmer advice, Desert Locust, and following instructions, which can be edited (<http://www.fao.org/ag/locusts/en/publicat/2581/index.html>)
- Animation – a simple SWABO animation that explains the danger of Desert Locust (<https://www.youtube.com/watch?v=3TOhuA-v1m4>)

Publicly available data

Desert Locust survey and control data are available for research and other non-commercial purposes, which can be viewed and downloaded from the FAO Locust Hub (<https://locust-hub-hqfao.hub.arcgis.com>) and Hand-in-Hand geospatial platform (<https://data.apps.fao.org>).

2022 calendar

- **CLCPRO.** 10th session, Algiers, Algeria (22–26 May, tbc)
- **DLCC.** 42nd session, Nairobi, Kenya (postponed to October–November)
- **SWAC.** 33rd session, Tehran, Iran (13–15 December, 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 km² • band: 1–25 m²

Small

- swarm: 1–10 km² • band: 25–2,500 m²

Medium

- swarm: 10–100 km² • band: 2,500 m² – 10 ha

Large

- swarm: 100–500 km² • band: 10–50 ha

Very large

- swarm: 500+ km² • 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*. Low alert. No threat to crops; maintain regular surveys and monitoring

Yellow

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

Orange

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

Red

- *Danger*. Very high alert. 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, Sierre 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

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

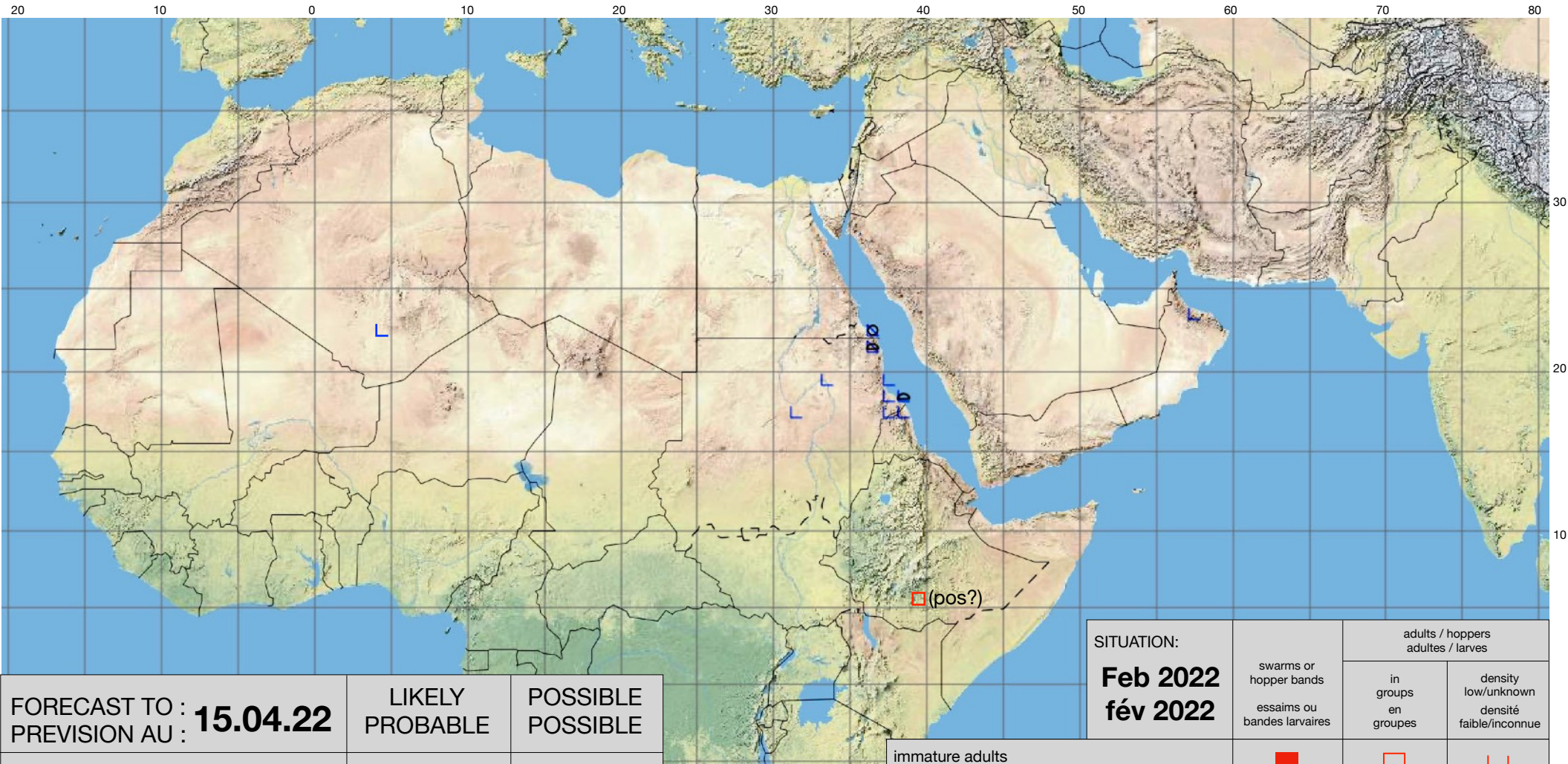
FAOLocust Slideshare. Locust presentations and photos
<http://www.slideshare.net/faolocust>

eLERT. Online database of resources and technical specifications for locust emergencies
<http://sites.google.com/site/elertsite>



Desert Locust Summary

Criquet pèlerin – Situation résumée



FORECAST TO : PREVISION AU :	LIKELY PROBABLE	POSSIBLE POSSIBLE
15.04.22		
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: Feb 2022 fév 2022	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)		