



Desert Locust Bulletin

General situation during January 2021
Forecast until mid-March 2021

WESTERN REGION: CALM

SITUATION. Control operations against adult groups in **Mauritania** (40 ha treated) and **Algeria** (2 ha); isolated adults in Mauritania, **Mali**, **Niger**, and **Morocco**.
FORECAST. Isolated locusts could persist in northwest **Mauritania**, northern **Mali** and **Niger**, and **Morocco**; small-scale spring breeding south of the Atlas Mountains.

CENTRAL REGION: THREAT

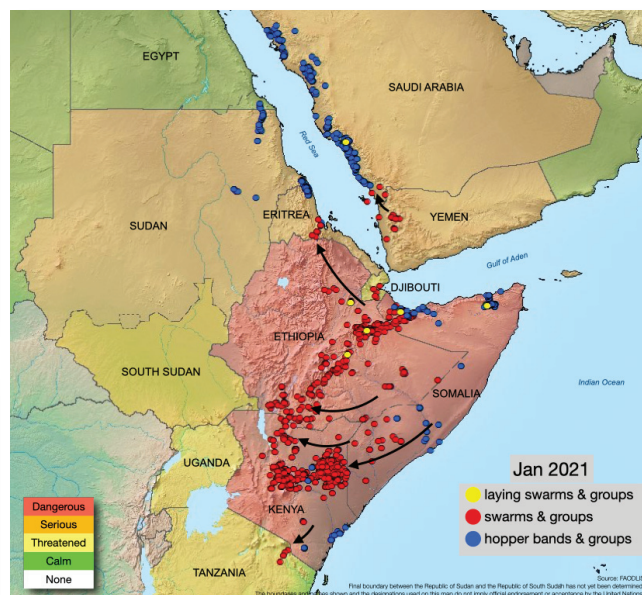
SITUATION. More swarms formed in eastern **Ethiopia** (166 158 ha treated) and central **Somalia** that migrated to northeast and southern Ethiopia, Eritrea, **Djibouti**, **Kenya** (39 036 ha), and **Tanzania** (450 ha); mature swarms, hatching and bands in northern **Somalia** (53 665 ha); swarms moved from Yemen to **Saudi Arabia** (47 070 ha) with hatching and bands on Red Sea coast; hopper bands and adult groups on coast of **Sudan** (7 122 ha), **Eritrea** (2 116 ha), and **Egypt** (755 ha); scattered adults on Red Sea and Gulf of Aden coasts in **Yemen**.

FORECAST. Swarm invasion to decline in southern **Ethiopia** and **Kenya** where they will mature and lay, giving rise to hopper bands; new swarms to form in northern **Somalia** and move to plateau; new groups and swarms may form on Red Sea coast of **Saudi Arabia** and move to interior; a few small swarms could form on Red Sea coast of **Sudan**, **Eritrea**, and perhaps **Yemen**; locust decline in **Egypt**.

EASTERN REGION: CALM

SITUATION. No locusts reported.

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



Swarms continue to migrate in the Horn of Africa

Numerous immature swarms continued to migrate from previous breeding areas in eastern Ethiopia and central Somalia to southern Ethiopia and Kenya. A few swarms moved to northeast Ethiopia and continued to Eritrea, while a swarm was seen in northeast Tanzania. The invasion will decline in February, and intensive control operations are expected to reduce current populations. Nevertheless, if rains fall in northern Kenya and southern Ethiopia in the coming weeks, the swarms will quickly mature and lay eggs that will hatch and cause hopper bands to form; otherwise, this will be delayed until the arrival of the seasonal rains in March. More hatching and band formation occurred in northern Somalia where intensive control operations are underway to reduce the number of new swarms that will form in February. Control operations continued in winter breeding areas along the Red Sea where hopper bands formed along the Saudi Arabian coast and on both sides of the Eritrea/Sudan and Egypt/Sudan borders. A few swarms from inaccessible areas of northern Yemen moved to adjacent areas of southwest Saudi Arabia. Any new adult groups or swarms that form in Saudi Arabia could move to the spring breeding areas in the interior of the Arabian Peninsula. The situation remained 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 January 2021

Very little rain fell except for some areas along the southern coastal plains of the Red Sea in Saudi Arabia. Breeding conditions remained favourable in northern Somalia.

WESTERN REGION

No significant rain fell in the region during January for the third consecutive month. Consequently, vegetation was drying out in western Mauritania, the Air Mountains of northern Niger, southeast Algeria, and northern Western Sahara. Small pockets of vegetation remained green between Akjoujt and Atar in northwest Mauritania, in northern Mali between Aguelhoc and Ti-n-kar, on the Atlantic coast of Morocco between Tan-Tan and Guelmim, and near irrigated perimeters in the Adrar Valley of the central Sahara in Algeria.

CENTRAL REGION

Very little rain fell in Kenya and southern Ethiopia during January except for light showers in northwest Kenya on the 1st in Turkana county and scattered showers at times during the first week in Marsabit county, extending to adjacent areas of southwest Ethiopia. During the remainder of the month, light rain fell occasionally near Lake Turkana and in parts of the Rift Valley in southern Ethiopia. Ecological conditions were somewhat favourable for breeding in eastern Kenya (Wajir, Garissa) and parts of the north (Marsabit) while other areas were dry. In Ethiopia, vegetation was drying out in the east (Somali), conditions were dry in the northeast (Afar), and some areas were green in the south (SNNP, southern Oromia). In Somalia, vegetation was drying out in central areas but remained green on the northwest coast and in the northeast. In the winter breeding areas along the Red Sea, only light to moderate showers fell on the southern coastal plains in Saudi Arabia between Lith and Jizan during the first two decades. Vegetation remained green along the coastal plains on both sides of the Sudan/Eritrea border and on the Saudi Arabian coast from Jizan to Al Wajh. Conditions were drying out on the Red Sea and Gulf of Aden coastal plains in Yemen and along Wadi Diib in northeast Sudan and adjacent coastal and subcoastal areas of southeast Egypt. In the spring breeding areas, light rains fell during the first decade in the northern interior of Saudi Arabia near Gassim where low temperatures prevailed. Light showers fell at times on the eastern coast of Oman south of Hayma. Conditions were likely to be dry in the interior of Yemen.

EASTERN REGION

Light rain fell at times in parts of the interior in the spring breeding areas of Sistan-Baluchistan in southeast Iran and

Baluchistan in southwest Pakistan where conditions were dry, cold, and unfavourable for breeding.



Area Treated

Control operations during January treated nearly 316 414 ha compared to 336 900 ha in December.

Algeria	2 ha
Egypt	755 ha
Eritrea	2 116 ha
Ethiopia	166 158 ha
Kenya	39 036 ha
Mauritania	40 ha
Saudi Arabia	47 070 ha
Somalia	53 665 ha
Sudan	7 122 ha
Tanzania	450 ha



Desert Locust Situation and Forecast

WESTERN REGION

MAURITANIA

• SITUATION

During January, isolated immature and mature solitarious adults were present in the west and northwest between Nouakchott (1809N/1558W), Aleg (1703N/1355W) and Atar (2032N/1308W). A mature adult group was treated (40 ha) in the Senegal River valley near Rosso (1629N/1553W) during the first week. Breeding ended in the northwest by mid-month when fifth instar solitarious hoppers were last seen between Akjoujt (1945N/1421W) and Atar.

• FORECAST

Isolated adults could persist in parts of the northwest. No significant developments are likely.

MALI

• SITUATION

During January, there were unconfirmed reports from the northeast of maturing solitarious adults persisting in areas of previous breeding between Aguelhoc (1927N/0052E) and Ti-n-kar (1926N/0022W).

• FORECAST

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

NIGER

• SITUATION

During January, low numbers of immature and mature solitarius adults were scattered along the western side of the Air Mountains between Agadez (1658N/0759E) and Arlit (1843N/0721E) as well as in the Air Mountains north of Iferouane (1905N/0824E) and east and south of Timia (1809N/0846E).

• FORECAST

Isolated locusts will persist in parts of the Air Mountains. No significant developments are likely.

CHAD

• SITUATION

No locusts were reported during January.

• FORECAST

No significant developments are likely.

SENEGAL

• SITUATION

No locusts were reported during December.

• 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 January, mature solitarious adults were present in the Adrar Valley (2753N/0017W) of the Central Sahara while immature solitarious adults and one immature group were present in the southeast near Djanet (2434N/0930E) where 2 ha were treated. No locusts were seen west of Tamanrasset (2250N/0528E) in the south.

• FORECAST

Small-scale breeding could occur near Tindouf and in the Central Sahara once temperatures warm up and if rains occur.

MOROCCO

• SITUATION

During January, isolated mature solitarious adults were present along the Atlantic coast between Tan-Tan (2826N/1106W) and Guelmim (2859N/1003W) and west of Laayoune (2709N/1311W) in the northern Western Sahara as well as further inland east of Boucraa (2621N/1250W).

• FORECAST

Low numbers of adults are likely to persist in parts of the Western Sahara and the Draa Valley where small-scale breeding should occur once temperatures warm up and if rains fall.

LIBYA

• SITUATION

No reports were received during January.

• FORECAST

No significant developments are likely.

TUNISIA

• SITUATION

No locusts were reported during January.

• FORECAST

No significant developments are likely.

CENTRAL REGION

SUDAN

• SITUATION

During January, hopper groups and bands formed along Wadi Diib in the northeast subcoastal areas between Tomala (2002N/3551E) and the Egypt border where breeding occurred last month. An immature and mature swarm were seen in the first week of January while scattered immature and mature adults and groups were present most of the month. Breeding continued southeast of Atbara (1742N/3400E) along the Atbara River where a few mature adult groups were present, and some hopper groups and bands formed, including a group of immature adults by the end of the month. On the Red Sea coast, mainly mid-late instar hopper bands were present in the south between Aiterba (1753N/3819E) and the Eritrea border while isolated immature and mature solitarious adults were scattered along the coastal plains as far north as Eit (2009N/3706E). Control teams treated 7 122 ha of which 4 100 ha were by air.

• FORECAST

Locust infestations are likely to decline in the northeast as conditions become dry but may persist along parts of the southern coastal plains in areas that remain green. There is a moderate risk that adult groups and perhaps a few small swarms could appear near the Eritrea border and breed, especially if additional rainfall occurs.

ERITREA

• SITUATION

During January, breeding was in progress on the northern Red Sea coast where laying occurred in December. Consequently, mainly hopper groups and a few bands were present near Mehimet (1723N/3833E) and the Sudan border where some had reached the fourth instar by the last week. Isolated breeding occurred south of Massawa where adults were laying eggs and a group of first instar hoppers were seen. On the 25th, two immature swarms were seen in the highlands south of Asmara (1519N/3856E) near the Ethiopia border and a mature swarm was reported on the coast near Massawa (1537N/3928E). These most likely arrived from adjacent areas of northern Ethiopia. Ground teams treated 2 116 ha.

• FORECAST

Immature adult groups and perhaps a few very small swarms are likely to form near Mehimet and the Sudan border as hoppers fledge from early February onwards.

ETHIOPIA

• SITUATION

During January, numerous immature swarms were present in Oromia region east of the Rift Valley from Harar (0919N/4206E) in the north, along the Harar Highlands and eastern side of the Bale Mountains, to Mega (0403N/3815E) and the Kenya border in the south. In Somali region, swarms were mainly present near Jijiga (0922N/4250E) and to a lesser extent in the Shebelle River valley near Gode (0557N/4333E) and further south near Dolo (0410N/4203E) and the Kenya/Somalia border. In SNNP region, swarms were present in the southern Rift Valley between Arba Minch (0602N/3733E) and the Kenya border. During the third week, swarms started to spread out from these areas. A few swarms moved northwest from the Harar Highlands to Afar region south of Semera (1148N/4100E) where some continued west to eastern Amhara region near Dese (1108N/3938E) while others moved north to Eritrea. During the last week, immature swarms were also seen near Kebri Dehar (0644N/4416E) in eastern Somali region. Only a few swarms were mature and seen copulating near Harar in the second week, south of Semera in the third week, and in northern Bale Zone. Control operations treated 166 158 ha of which 153 517 ha were by air.

• FORECAST

Swarms are expected to concentrate mostly in central and southern Oromia and eastern SNNP adjacent to the Rift Valley. A few swarms may remain in the Harar Highlands. The swarms are likely to slowly mature and could start to lay eggs, mainly in the south, from about mid-February onwards that would hatch and cause an increasing number of hopper bands to form during March. Some immature swarms from northern Somalia may appear in Somali and Oromia regions.

DJIBOUTI

• SITUATION

During January, immature swarms were reported in the south near Ali Sabieh (1109N/4242E) on the 6th and 8th, and on the coast near Tadjourah (1147N/4253E) on the 8th. During the last week, immature swarms were reported to the south and north of Lake Ghoubbet on the 22nd and 25th respectively. These swarms are likely to have originated from adjacent areas of Ethiopia and northwest Somalia. No locusts were seen during surveys in the south along the Ethiopia border from Diksa (1100N/4206E) to Guisti (1101N/4258E).

• FORECAST

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

SOMALIA

• SITUATION

During January, mature swarms were present mainly in the northwest during the first three weeks. Breeding continued in areas that received good rains from Cyclone Gati in November on the northwest coast where swarms laid eggs in the first week and in the northeast where at least one swarm was still laying eggs after mid-month between Iskushuban (1017N/5014E) and Bosaso (1118N/4910E). Consequently, an increasing number of hopper groups and bands formed in these areas. By the end of the month, some bands had reached the fifth instar while hatching was still underway in some places. In central areas, immature groups from earlier breeding were maturing in Mudug and Galguduud regions while late instar hopper bands were present along the Shabelle River in Hiraan and Middle Shabelle regions early in the month. More immature swarms formed in central areas and continued to move south of the Shabelle River where they were seen in the southern regions of Bakool, Bay, Gedo, and Middle and Lower Juba flying south to Kenya. Control operations treated 53 665 ha of which 11 746 ha were by air in the north.

• FORECAST

Hopper bands will continue to develop and fledge in the northwest and northeast, giving rise to an increasing number of immature swarms from the first week of February onwards. Swarms on the northwest coast are likely to move to the plateau and adjacent areas of Ethiopia while swarms in the northeast will probably slowly shift westwards along the plateau where another generation of breeding could start in about mid-March. A few swarms may move southwards through central regions to the south and Kenya.

KENYA

• SITUATION

During January, immature swarms continued to arrive mainly in the northeast and east from where many spread further west to northern, central and southeastern counties. Swarms were reported in 15 counties; however, as many of the swarms were moving rapidly due to dry conditions, they were often reported more than once. Towards the end of the month, some of the swarms were starting to mature and, on the 31st, laying was reported in Tana River. On the coast, mid-late instar hopper bands were present between Lamu (0216S/4054E) and Malindi (0313S/4007E) from earlier breeding. In Taita-Taveta, hopper bands fledged, and a few immature swarms formed during the last week near the Tanzania border. Control operations treated 39 036 ha of which 31 955 were by air.

• FORECAST

Current swarms will continue to disperse within northern and central counties; however, the arrival of further swarms from the north should cease by mid-February. If rains fall, the swarms will quickly mature and lay eggs; otherwise, they will continue to slowly mature, awaiting the arrival of the long

rains in March for maturation and egg-laying. In either case, hatching will lead to the formation of hopper bands in March and April.

SOUTH SUDAN

• SITUATION

No locusts were reported during January.

• 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 January.

• FORECAST

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

TANZANIA

• SITUATION

During the second week of January, a few small immature swarms from adjacent areas of southern Kenya arrived in Simanjiro district of Manyara region in the northeast between Naberera (0412S/3655E) and the Kenya border. Aerial control operations treated 450 ha.

• FORECAST

There remains a low risk that a few small swarms from adjacent areas of Kenya could appear in border areas of the northeastern regions of Kilimanjaro, Manyara, and Tanga during February but this will progressively decline from March onwards as the seasonal winds reverse and come from the south.

EGYPT

• SITUATION

During the first week of January, mid-instar hopper bands and a few groups of immature and mature adults were seen along Wadi Diib in subcoastal areas of the Red Sea in the southeast near the Sudan border. Some of the adults were copulating. Thereafter, scattered immature and mature adults were present, extending to the coast south of Shalatyn (2308N/3535E). During the last week, groups of mixed instar hoppers and immature adults were seen in Wadi Diib. Ground teams treated 755 ha. No locusts were seen elsewhere on the Red Sea coast north to Berenice (2359N/3524E), in the Red Sea Hills as far north as Qena (2609N/3243E), and near Lake Nasser in the Tushka (2247N/3126E), Abu Simbel (2219N/3138E), and Wadi Allaqi (2236N/3318E) areas.

• FORECAST

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

SAUDI ARABIA

• SITUATION

During January, breeding continued along the Red Sea coast where a swarm and a group of adults were still seen laying at a few places in the first week. A substantial number of early instar hopper groups and a few bands were mainly present near Qunfidah (1909N/4107E) but extended south to Jizan (1656N/4233E) and north to nearly Mecca (2125N/3949E) as well as to the northern coast between Rabigh (2247N/3901E) and Al Wajh (2615N/3627E). Although fledging commenced shortly after mid-month, only scattered immature gregarious adults were reported between Lith (2008N/4016E) and Mecca. On 22–24 January, several immature swarms from adjacent areas of northern Yemen arrived on the southern coast near Jizan, Farsan Island (1640N/4210E), and adjacent areas in the Asir Mountains. Control operations treated 47 070 ha of which 3 400 ha were by air. There were no reports from the interior.

• FORECAST

Any hopper infestations that miss detection or control will fledge and form immature groups and small swarms on the Red Sea coast during February. Some of these groups and swarms could move to the spring breeding areas of the interior while others may remain in areas of recent rainfall on the coast south of Jeddah where they will mature and breed. There remains a moderate risk of additional swarms arriving from northern Yemen and moving northwards along the coast and in the Asir Mountains.

YEMEN

• SITUATION

During January, mainly scattered immature and mature solitary adults were present on the Red Sea coast between Suq Abs (1600N/4312E) and Zabid (1410N/4318E) and on the Gulf of Aden coast between Am Rija (1302N/4434E) and Bir Ali (1401N/4820E). Several immature and maturing swarms were seen during the second week in the highlands between Sana'a (1521N/4412E) and the Red Sea coast. During the last week, immature swarms were seen further south in the highlands to the east of Bajil (1458N/4314E) and on the coast near Bayt Al Faqih (1430N/4317E) and Al Zuhrah (1541N/4300E) while immature adult groups were present near Suq Abs. The swarms are likely to have arisen from inaccessible coastal and interior areas of the north.

• FORECAST

Unless further rains fall, breeding will be limited, and remaining adults are likely to concentrate as vegetation dries out and form small groups and perhaps a few very small swarms on the Red Sea coast. There remains a risk that a few swarms may be present in inaccessible areas on the coast and in the highlands. Scattered adults are expected to persist along parts of the Gulf of Aden coast, but breeding is less likely unless further rainfall occurs.

OMAN

• SITUATION

During January, no locusts were seen in the northern interior from Buraimi to Sharqiyah, on the Batinah coast, and in the Musandam Peninsula.

• 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 January, 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. There is a low risk that a few swarms may arrive in the southwest from adjacent areas of the Arabian Peninsula.

PAKISTAN

• SITUATION

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

• FORECAST

No significant developments are likely.

AFGHANISTAN

• SITUATION

No locust reports were received during December.

• 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 and 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 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>).

Calendar

CRC. 32nd 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 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*. 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

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
<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>

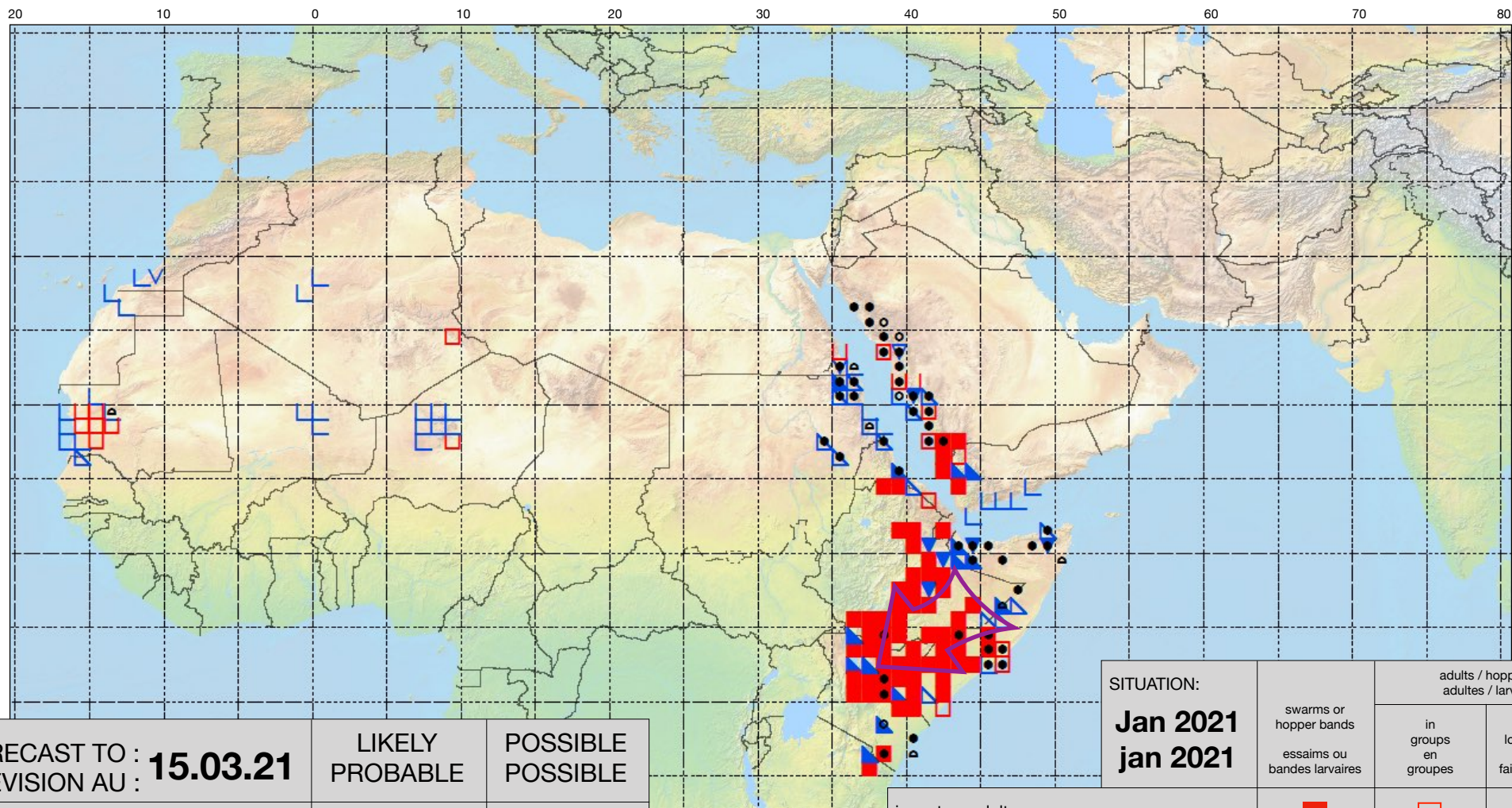
eLERT. Online database of resources and technical specifications for locust emergencies
<http://sites.google.com/site/elertsite>



Desert Locust Summary

Criquet pèlerin – Situation résumée

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FORECAST TO : PREVISION AU : 15.03.21	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: Jan 2021 jan 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)			