Food and Agriculture Organization of the United Nations

No. 503 2 SEPTEMBER 2020

Desert Locust Bulletin

General situation during August 2020
Forecast until mid-October 2020

WESTERN REGION: CALM

SITUATION. Isolated adults in **Mauritania**, **Mali**, **Niger**, and breeding in **Chad**.

FORECAST. Small-scale breeding in the northern Sahel from **Mauritania** to **Chad**.

CENTRAL REGION: THREAT

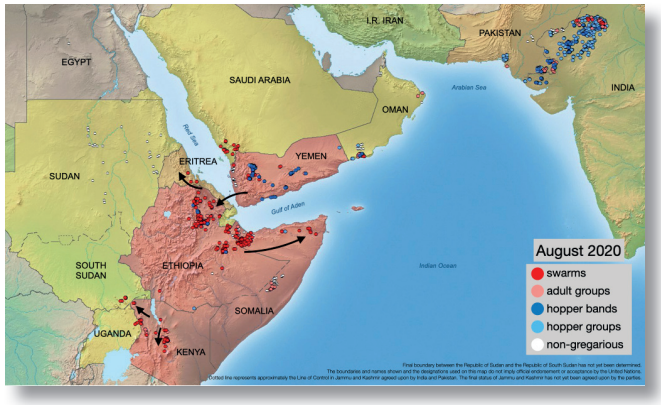
SITUATION. Few immature swarms persist in northwest **Kenya** (4 528 ha treated), a swarm crossed to northeast **Uganda** and southeast **South Sudan** (250 ha); swarms mature and lay eggs that hatch in northeast **Ethiopia** (54 703 ha) while immature swarms persist in the east, extending to northern **Somalia** (8 800 ha); mature swarms appear in **Eritrea** (1 310 ha) and hopper groups on southern Red Sea coast. Hopper bands and swarms in the interior and south coast of **Yemen** (5 909 ha), adults on the Red Sea coast; adult groups and immature swarm form on south coast of **Oman** (58 ha); several mature swarms in southwest **Saudi Arabia** (1 355 ha) and southern Red Sea coast. Scattered adults mature in **Sudan**.

FORECAST. Swarms will slowly mature and breed in northwest **Kenya**, eastern **Ethiopia** and northwest **Somalia** while breeding will continue in northern Ethiopia and **Yemen**, extending to Red Sea coast of **Eritrea**, Yemen and **Saudi Arabia**. Widespread, small-scale breeding in **Sudan** and western Eritrea. Some swarms may move south from Yemen and northern Somalia towards Kenya in October.

EASTERN REGION: THREAT

SITUATION. Intensive survey and control operations against summer-bred hopper groups and bands in Rajasthan, **India** (49 124 ha treated) and Tharparkar, **Pakistan** (26 381 ha) reduce locust infestations.

FORECAST. Hoppers will fledge and form adult groups and small swarms along the **Indo-Pakistan** border that will mature and lay eggs, causing a second but smaller generation of hopper bands in October.



Summer breeding in Ethiopia and Indo-Pakistan

Ground and aerial control operations continued against spring-bred swarms that persisted in the Horn of Africa during August. Summer breeding started in northern Ethiopia where an increasing number of hopper bands formed. Other swarms remained immature in eastern Ethiopia and northern Somalia that could spread south, if they do not mature, towards Kenya when the prevailing winds change in October. This could be supplemented by a few swarms from Yemen where control operations were undertaken in the interior against numerous hopper bands and swarms. Several mature swarms invaded Eritrea and southwest Saudi Arabia from Ethiopia and Yemen, respectively, where breeding and hopper band formation is likely. A few swarms moved from northwest Kenya to adjacent areas of Uganda and South Sudan. In southern Oman, adult groups and a swarm formed from local breeding on the coast. Locust infestations are expected to increase substantially in Ethiopia, Eritrea, Yemen and, to a lesser extent, on the Red Sea coast in Sudan and Saudi Arabia. In southwest Asia, extensive hatching and hopper band formation occurred in India and, on a smaller scale, in southeast Pakistan. Intensive control operations significantly reduced the infestations that will limit a second generation of breeding in September. The situation remained calm in the northern Sahel from Mauritania to western Eritrea where good rains fell much further north than usual but only small-scale breeding is expected because current locust numbers are very low.

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 August 2020

Exceptional and widespread rains fell in early August throughout the summer breeding areas of from Mauritania to Eritrea, reaching much further north than usual and extending to the Red Sea coast. Good rains fell in Yemen and the Indo-Pakistan monsoon continued.

WESTERN REGION

The Inter-Tropical Convergence Zone (ITCZ) was present over the summer breeding areas in the northern Sahel between Mauritania and Chad throughout August. During the first and third decades, it moved some 300—400 km further north than usual over Mali, Niger, and Chad, reaching Tamanrasset in southern Algeria. As a result, moderate to heavy rains fell between the Adrar des Iforas in northern Mali to the Air Mountains in northern Niger as well as in northern Chad, including Tibesti and the Mourdi Depression. In northeast Mali, heavy rains fell at the end of the month on the western side of the Adrar des Iforas near Aguelhoc and in Timetrine. The exceptionally good rains caused annual vegetation to become green and breeding conditions to be favourable from Mali to Chad. In Mauritania, the ITCZ was further south that its normal position during the entire month. Nevertheless, light to moderate rains fell progressively the south, reaching as far north Tidjikja and conditions became favourable for breeding. Light to moderate rains also fell in the northwest during the first two decades.

CENTRAL REGION

The Inter-Tropical Convergence Zone (ITCZ) was present over the summer breeding areas in the interior of Sudan throughout August. During the first and third decades, it moved some 400 km further north than usual, especially in the first decade when it reached the Egyptian border. As a result, light to moderate rains fell much further north than in most years, extending in the first decade to the Libyan and Egyptian borders, and Selima Oasis while heavier rains fell in the Nubian Desert to the Red Sea Hills between the borders of Eritrea and Egypt. During the remainder of the month, good rains fell in North Darfur, North Kordofan, and Kassala states. In the winter breeding areas, widespread moderate to heavy rains fell along both sides of the central and southern Red Sea during the first decade of August from the Egypt border to Djibouti except for the central coast near Port Sudan, and from Bader, Saudi Arabia to Aden, Yemen. During the second decade, light to moderate showers fell on the northern Eritrea coast and on the Tihama of Yemen. Light to moderate rains fell at times in the interior of Yemen and northern Oman. In the Horn of Africa, moderate to heavy rains fell in Afar, Amhara, and Tigray of northern Ethiopia, and moderate rains fell over the Harar Highlands and, at times, on the plateau of northwest Somalia. In the eastern Ogaden, annual vegetation became green along both sides of the Ethiopia-Somalia border. In northwest Kenya, very little rain fell while low temperatures and local winds inhibited locust migration towards the north.

EASTERN REGION

Monsoon rains continued to fall along both sides of the Indo-Pakistan throughout August. Rainfall was above average in West Rajasthan. Consequently, annual vegetation was green and ecological conditions were favourable for breeding throughout Rajasthan and northern Gujarat in India and in adjacent areas of Tharparkar, Nara, and Cholistan deserts in Pakistan. Conditions were also favourable in the Lasbela valley west of Karachi. On the 27th, extremely heavy rains and flooding occurred in Karachi where a record 345 mm were received in a single day, bringing the week's total to 760 mm.

Area Treated

Control operations treated 153 149 ha in August compared to some 225 254 ha in July.

Eritrea	1 310 ha
Ethiopia	54 703 ha
India	49 124 ha
Kenya	5 454 ha
Oman	58 ha
Pakistan	26 381 ha
Saud Arabia	1 355 ha
Somalia	15 377 ha (July, revised)
	8 800 ha
South Sudan	250 ha
Uganda	(not reported)
Yemen	5 909 ha

Desert Locust Situation and Forecast

WESTERN REGION

MAURITANIA

• **SITUATION**

During August, isolated mature solitarious adults were present in the south to the northeast of Magta Lahjar (1730N/1305W) in Brakna, southern Tagant, northern Hodh El Gharbi east of Aioun El Atrous (1639N/0936W), and near Nema (1636N/0715W) and Oualata (1717N/0701W) in Hodh Ech Chargui.

• **FORECAST**

Small-scale breeding in the south will cause locust number to increase slightly but remain below threatening levels. If vegetation starts to dry out at the end of forecast period, locusts may concentrate and move towards the northwest.

Mali

• **SITUATION**

During August, scattered immature solitarious adults were present in the Adrar des Iforas near Aguelhoc (1927N/0052E). No locusts were seen near Tombouctou (1649N/0259W) and in the west to the southeast of Nioro (1512N/0935W).

• **FORECAST**

Small-scale breeding is likely to be in progress and will continue in areas of recent rainfall in Tamesna, the Adrar des Iforas, Tilemsi Valley, and Timetrine. Consequently, locust numbers will increase slightly but remain below threatening levels.

Niger

• **SITUATION**

During August, isolated immature and mature solitarious adults were present on the Tamesna Plains near In Abangharit (1754N/0559E) and along the western side of the Air Mountains between Agadez (1658N/0759E) and Arlit (1843N/0721E) as well as the eastern edge of the Air Mountains.

• **FORECAST**

Small-scale breeding is likely to be in progress and will continue in areas of recent rainfall in the central pasture areas and on the Tamesna Plains. Consequently, locust numbers will increase slightly but remain below threatening levels.

Chad

• **SITUATION**

During August, isolated immature and mature solitarious adults were seen in central areas from south of Moussoro (1338N/1629E) to Djedaa (1331N/1834E). Small-scale hatching occurred in some places and solitarious hoppers of various instars were present. In the northeast, low numbers of mature solitarious adults were present and laying between Fada (1714N/2132E) and Amdjarass (1604N/2250E).

• **FORECAST**

Small-scale breeding will continue in areas of recent rainfall in western, central, and eastern areas, as well as perhaps further north than usual in Tibesti and Mourdi Depression. Consequently, locust numbers will increase slightly but remain below threatening levels.

Senegal

• **SITUATION**

No locusts were reported during August.

• **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 August, no locusts were seen in the central Sahara near the Adrar Valley (2753N/0017W), in the southeast near Djanet (2434N/0930E), in the south near Tamanrasset (2250N/0528E), along the Mali border near Bordj Badji Mokhtar (2119N/0057E), and along the Niger border near In Guezzam (1934N/0546E).

• **FORECAST**

Small-scale breeding may occur in areas of recent rainfall in the extreme south near the borders of Mali and Niger, causing locust numbers to increase slightly.

Morocco

• **SITUATION**

No locusts were reported during August.

• **FORECAST**

No significant developments are likely.

Libya

• **SITUATION**

No reports were received during August.

• **FORECAST**

No significant developments are likely.

Tunisia

• **SITUATION**

No locusts were reported during August.

• **FORECAST**

No significant developments are likely.

CENTRAL REGION

Sudan

• **SITUATION**

During August, low numbers of immature and mature solitarious adults were scattered in the summer breeding areas of North Kordofan and White Nile states, along the Nile Valley from Ed Damer (1734N/3358E) to Dongola (1910N/3027E), and on the western side of the Red Sea Hills from Kassala (1527N/3623E) to Sinkat (1855N/3648E). Unconfirmed reports of locusts on the Red Sea coast near Eritrea could not be confirmed due to inaccessibility because of flooding.

• **FORECAST**

Locust numbers will increase slightly as a result of small-scale, widespread breeding in West and North Darfur, West

and North Kordofan, White Nile and Kassala states as well as further north than usual in Northern State and on the western side of the Red Sea Hills, including the Nubian Desert. This may cause small groups to form if vegetation starts to dry out at the end of forecast period in the interior. Breeding may occur on the Red Sea coast and northeastern subcoastal areas in areas of recent rains and floods.

Eritrea

• **SITUATION**

During August, no locusts were seen during surveys in the western lowlands between Kerkebet (1604N/3725E) and the Ethiopia border. On the 19–24th, mature swarms were seen flying and laying on the Red Sea coast west of Massawa near Adi-Shuma (1536N/3905E) and south of the Ghelaelo Peninsula near Buya (1450N/3951E), and in the southern highlands near Adi Keyh (1451N/3922E). Other swarms were reported in the highlands to the south and west of Asmara (1519N/3856E), and as far north as nearly Nakfa (1640N/3828E). Breeding occurred on the southern coastal plains between Tio (1441N/4057E) and Assab (1301N/4247E) where hopper groups were reported. Ground teams treated 1 310 ha.

• **FORECAST**

Mature swarms from adjacent areas of northern Ethiopia are likely to appear in the highlands and the western and eastern lowlands. Breeding is more likely to occur in both lowlands where good rains fell in August, which could lead to substantial hatching and band formation, especially on the Red Sea coast. This could be further supplemented by additional swarms arriving from Yemen.

Ethiopia

• **SITUATION**

During August, mainly immature and a few mature swarms were present on the northeastern edge of the Rift Valley near Dire Dawa (0935N/4150E), Ayasha (1045N/4234E), and Jijiga (0922N/4250E), and in the Harar Highlands. Cross-border movements occurred near Ayasha and Jijiga. Numerous swarms were maturing and laid eggs on the northwestern edge of the Rift Valley in several districts of Afar region west of Semera (1148N/4100E) and along a 350 km stretch of the eastern escarpment in eastern Tigray and Amhara regions from south of Dese (1108N/3938E) to north of Mekele (1329N/3928E) that hatched after mid-month, giving rise to early instar hopper groups and bands. The swarms were supplemented by maturing and mature swarms that arrived from Yemen about mid-month. In the southern region of SNNPR, an immature swarm arrived from Kenya on the 7th. Control operations treated 54 703 ha of which 37 108 ha were by air.

• **FORECAST**

Widespread egg-laying and hatching in the northern highlands (Amhara, Tigray) and the northern Rift Valley (Afar) is expected to cause a substantial increase in hopper bands that could give rise to new immature swarms from early October onwards. Swarms in the northern Somali region that do not mature are likely to spread southwards to the Ogaden and southern areas. This may be supplemented by additional swarms from northwest Somalia and Yemen.

Djibouti

• **SITUATION**

During August, locals reported seeing swarms flying towards Ethiopia in the second week, and only a few scattered mature adults were seen on the ground. No crop damage was reported.

• **FORECAST**

A few groups and small swarms may appear at times from Yemen and transit through the country to Ethiopia and Somalia.

Somalia

• **SITUATION**

During August, immature swarms persisted on the northwest plateau between Hargeisa (0931N/4402E) and Boroma (0956N/4313E), extending down the escarpment to the coast near Bulhar (1023N/4425E). A few solitarious adults and groups matured on the escarpment and northwest coast near Silil (1058N/4326E). In the northeast, several immature swarms were seen on the plateau northwest of Iskushuban (1017N/5014E) until the 12th, and an immature swarm was reported on the 29th near Erigavo (1040N/4720E). In the central region of Galguduud, immature and mature solitarious adults were present between Dusa Mareb (0532N/4623E) and Galkayo (0646N/4725E). Control operations using biopesticides treated 8 800 ha of which 5 700 ha were by air.

• **FORECAST**

Limited breeding is likely to occur in areas of recent rain on the plateau between Boroma and Burao, giving rise to another generation of hopper bands. However, swarms that do not mature and breed are expected to move southwards from late September onwards to adjacent areas of eastern Ethiopia and beyond. This could be supplemented by additional swarms arriving from Yemen.

Kenya

• **SITUATION**

During August, low numbers of immature spring-bred swarms persisted in the northwest counties of Turkana and Marsabit while an increasing number of swarms were seen in Samburu county. The swarms were mainly small and mobile, moving with local winds in the Rift Valley and nearby areas as far north as the South Sudan border and west to the Uganda border. A few of the adults were starting to mature. Aerial control operations treated 5 454 ha.

• **FORECAST**

Any swarms that escape detection and control operations are likely to slowly mature, primarily in Turkana, Marsabit

and Samburu counties where they could eventually lay eggs towards the end of the forecast period in lowland areas of recent rains. This could be supplemented in late October by swarms arriving in the north from Ethiopia, northern Somalia, and Yemen.

Uganda

• **SITUATION**

During August, a few immature swarms from adjacent areas of northwest Kenya appeared in the Moroto (0231N/3439E) area of the northeast (Karamoja) on the 12th, 19th and 22nd. The latter swarm contained a few mature adults and was reported to be 8 km long, which spread within Moroto, Amudati, Napak districts. Aerial control operations were undertaken but no details are available.

• **FORECAST**

A few swarms may continue to arrive at times in Karamoja from adjacent areas of Kenya. The swarms are likely to disperse without breeding.

South Sudan

• **SITUATION**

During August, a large immature swarm from adjacent areas of northern Uganda and Kenya appeared on the 2nd in Budi and Kapoeta South districts of the southeast and reached Kapoeta (0446N/3335E). On 22 August, another swarm was seen near Kapoeta at Namornyang (0440N/3339E) that later moved back to Kenya. Several swarmlets were seen moving north and eastwards in the same area near Narekepai (0445N/3339E) in the following days. On the 31st, a swarm appeared in Budi district near Naguri (0425N/3312E). Ground teams treated 250 ha.

• **FORECAST**

A few swarms may continue to arrive at times in Eastern Equatoria from adjacent areas of Kenya. The swarms are likely to disperse without breeding.

Egypt

• **SITUATION**

During August, isolated mature solitarious adults were seen at one place in the Western Desert near Farafra oasis (2710N/2818E). No locusts were seen elsewhere in the Western Desert near Bahariya (2821N/2851E), Sh. Oweinat (2219N/2845E), Tushka (2247N/3126E), and Abu Simbel (2219N/3138E), and on the Red Sea coast between Abu Ramad (2224N/3624E) and Halaib (2213N/3638E).

• **FORECAST**

No significant developments are likely.

Saudi Arabia

• **SITUATION**

During the last week of August, several mature swarms were seen in the southwest just north of the Yemen border in the Asir Mountains west of Najran (1729N/4408E) and on the Red Sea coast near Jizan (1656N/4233E). Ground teams treated 1 355 ha.

• **FORECAST**

Breeding is likely to occur in areas of recent rainfall on the Red Sea coast between Jeddah and Yemen, especially in southern areas near Jizan where heavy rains fell in early August.

Yemen

• **SITUATION**

During August, mature adult groups and swarms continued laying in the interior and numerous hopper bands and a few immature adult groups and swarms were present on the edge of Ramlat Sabatyn mainly near Al Hazm (1610N/4446E) but also extending to Nisab (1430N/4629E), Al Abr (1608N/4714E), Sayun (1559N/4844E) and southwest of Hawra (1542N/4817E) in Wadi Hadhramaut, on the plateau north of Mukalla (1431N/4908E) in Wadi Haru, and in the central highlands south of Sana'a (1521N/4412E). Hopper groups were reported on the eastern plateau near Shehan (1746N/5229E) and the Oman border. A few immature adult groups and swarms were seen near Sana'a and Al Hazm. On the southern coast, hopper bands formed near Mayfa'a (1416N/4735E) and between Zinjibar (1306N/4523E) and Ahwar (1333N/4644E). On the northern Red Sea coast, a mature swarm appeared north of Suq Abs (1600N/4312E) on the 4th, and immature and mature solitarious adults were scattered along the coast between Suq Abs and Zabid (1410N/4318E). Ground teams treated 5 909 ha.

• **FORECAST**

More adult groups and swarms will form in the central highlands and interior. Some of the swarms will remain in areas of recent rainfall within the interior and breed in areas that stay favourable, causing another generation of hopper bands to form, while other swarms will move south towards the Gulf of Aden and west towards the Red Sea where breeding will occur on the Tihama, causing hopper bands to form.

Oman

• **SITUATION**

During August, most of the hopper groups and bands that remained in the south on the coast and in the Dhofar Hills near Salalah (1700N/5405E) had fledged by mid-month and formed immature adult groups and, in the last week, an immature swarm was seen flying southwards on the 23rd while a few groups of mature adults were reported nearby. Hopper groups and fledglings were also seen at a few places near the coast towards Yemen. Scattered immature and mature adults were present on the interior plains west of the Dhofar Hills near Thumrait (1736N/5401E). In the northeast, mature solitarious adults and a few groups appeared near Sur (2234N/5930E) and immature solitarious

adults were present in the northwest near Buraimi (2415N/5547E). Ground teams treated 58 ha.

• **FORECAST**

A few small groups or swarms could form on the Salalah coast and move southwest to Yemen.

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

• **FORECAST**

No significant developments are likely.

EASTERN REGION

Iran

• **SITUATION**

During August, low numbers of mature solitarious adults remained until about mid-month in South Khorasan near the Afghanistan border between Sarbisheh (3234N/5948E) and Nehbandan (3132N/6002E). No locusts were seen during surveys carried throughout the south.

• **FORECAST**

No significant developments are likely.

Pakistan

• **SITUATION**

During August, hopper groups and bands continued to develop in Tharparkar mainly between Chachro (2507N/7015E), Nagarparkar (2421N/7045E), and the India border in the extreme southeast of Sindh. Fledging commenced during the first week, causing groups of immature adults to form on the border of India. In Cholistan, scattered mature solitarious adults and a few late spring-bred mature adult groups were present and breeding near Islamgarh (2751N/7048E) until about mid-month; thereafter, groups of mid-instar hoppers were seen, and fledging started in the last week. In the Lasbela Valley, numerous hopper groups of various instars were present near Uthal (2548N/6637E). Control operations treated 26 381 ha of which 1 200 ha were by air.

• **FORECAST**

A second, limited generation of breeding is expected in Tharparkar and perhaps Cholistan with egg-laying and hatching in September, which is likely to give rise to hopper groups and small bands that will begin to fledge in late October. Immature adult groups will form in Lasbela where a second generation of breeding could occur in October.

India

• **SITUATION**

During August, late spring-bred mature adult groups and swarms laid eggs in northern Rajasthan between Churu (2818N/7458E) and Suratgarh (2919N/7354E) until about mid-month. Widespread hatching and the formation of hopper groups and bands increased throughout Rajasthan in Barmer, Jodhpur, Nagaur, Bikaner, Churu, and Ganganagar districts in Rajasthan and Kutch district in Gujarat. Limited breeding took place in Jaisalmer, Jalor, Pali, Sikar, and Jhunjhunun districts of Rajasthan. Ground and drone operations treated 49 124 ha on 1–26 August.

• **FORECAST**

A second, limited generation of breeding is expected in Rajasthan and Gujarat with egg-laying and hatching in September, which is likely to give rise to hopper groups and small bands that will begin to fledge in about late October.

Afghanistan

• **SITUATION**

No locust reports were received during August.

• **FORECAST**

Isolated adults may persist near cropping areas in Paktia. 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, 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

No activities are currently scheduled.

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^2
- band: 1–25 m^2

Small
- swarm: 1–10 km^2
- band: 25–2,500 m^2

Medium
- swarm: 10–100 km^2
- band: 2,500 m^2 – 10 ha

Large
- swarm: 100–500 km^2
- band: 10–50 ha

Very large
- swarm: 500+ km^2
- 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
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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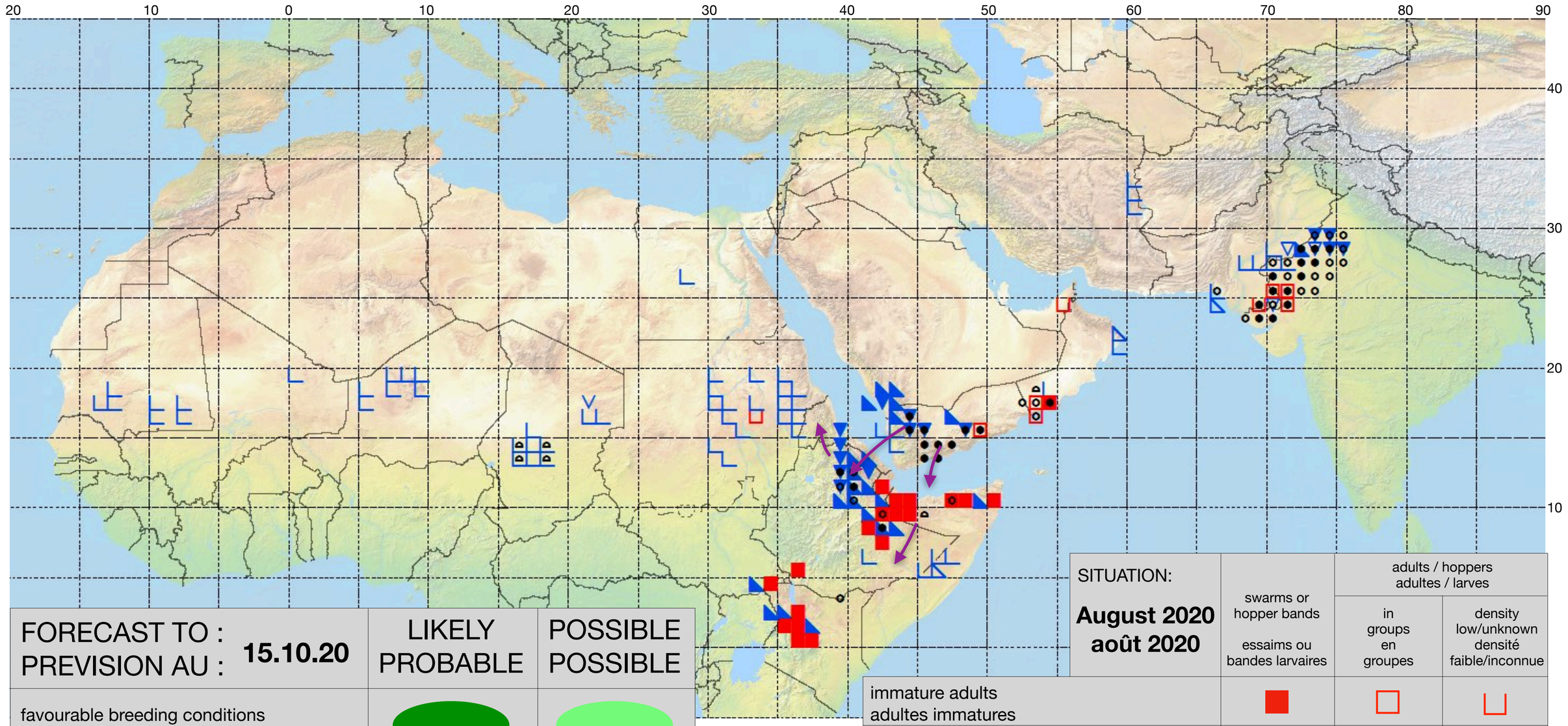

FORECAST TO : PREVISION AU : **15.10.20**	LIKELY PROBABLE	POSSIBLE POSSIBLE
favourable breeding conditions conditions favourables à la reproduction		
major swarm(s) essaim(s) important(s)		
minor swarms(s) essaim(s) limité(s)		
non swarming adults adults non essaimant		

SITUATION: **August 2020 août 2020**	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)	◘	◙	⊍