So, for this bit of research, I'm going to look at specific animal deaths in the world. I'll be creating videos of a wide selection of deaths worldwide, of fish, birds, pigs etc.

But I want to try and pick a few, see if I can understand what may be the reason for the deaths.

So, for this one, I'm looking at this link:

https://www.thehindu.com/news/national/other-states/thousands-of-migratory-birds-die-mysteriously-in-rajasthans-sambhar-lake/article29950537.ece

It's from 15 November 2019, and regarding over 5000 migratory birds that died in Sambhar Salt Lake, in India.

I'll be doing some of my normal research, as in are the locations correct and so on, and maybe delve a bit deeper. Animal deaths are a lot harder to look at than humans, as it seems that they hardly make the news, which is a shame. Not talking a few dead, but thousands daily.

Oh, and you thought bird flu was gone? Not a chance, will post later about that.

Now, back to this one. The article states they were found around Sambhar Lake, the country's largest inland saltwater lake near Jaipur. So, is that true?

Well, according to my hated site, Wikipedia, it is:

https://en.wikipedia.org/wiki/Sambhar_Salt_Lake

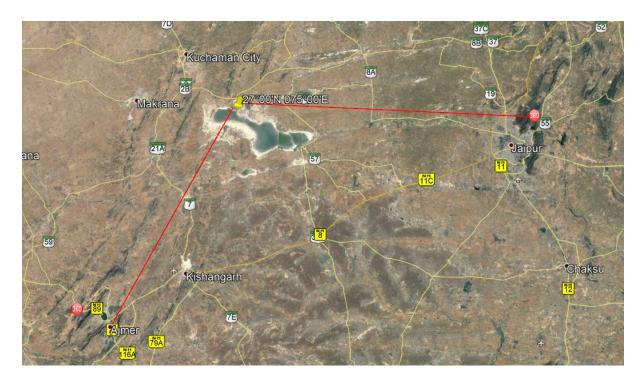
But look at what they say:

"The Sambhar Salt Lake, India's largest inland salt lake is located 80 km southwest of the city of Jaipur and 64 km northeast of Ajmer, Rajasthan. It surrounds the historical Sambhar Lake Town."

From that wording, it appears that it's nearer Ajmer more that Jaipur. So, here it is:

https://rsis.ramsar.org/ris/464

So, I went to Google Earth, and as the crow flies, these are the measurements:



Ajmer is: 69.9km, and Jaipur is 80.6km.

So, they're roughly correct, as in Wiki, but maybe Jaipur is the larger city of the two or most known.

The types of birds that they found were plovers, common coot, black winged stilt, northern shovelers, ruddy shelduck, and pied avocet were scattered on the edge of 12-13 km of the catchment area of the lake, leading to a possible number of over 5,000.

A forest ranger thinks it may be due to hailstorms in the area a few days earlier.

Now, this was originally reported on 12 November, and the website updated on 16 November. To actually look up a location and the weather that was occurring at that time, takes a bit of piecing together.

Firstly, the majority of places out there don't have a weather station on every roof, so you have to find the nearest one. So, in the case of the location we're looking at, Sambhar Lake, the nearest is Jaipur/Sanganer Airport:

https://www.weather-forecast.com/locations/Sambhar/forecasts/latest

Live weather stations near Sambhar

	Sambhar Live Weather Today: Recent reports from weather stations near Sambhar			
WEATHER STATION	TEMP.	WEATHER	WIND	
Jaipur/Sanganer Airport 81 km ESE 390m alt. 1 hour ago	19° C	•	Light winds from (13 km/h at 70°).	
Indira Gandhi/de 270 km NE 233m alt. 1 hour ago	18° C	Haze dry and partly cloudy.	Q Calm (0 km/h at 0°).	

This may be why it says originally it's near Jaipur, as that is where the weather stations are.

So, once you have the nearest station location, you can then search. Bear in mind that the distance has to be taken into account for weather, but it shouldn't be drastically different.

So, one site to use is here:

 $\frac{\text{https://www.weatheronline.in/weather/maps/current?TYP=temperatur\&ART=tabelle\&JJ=xxxx&MM}{=03\&TT=15\&TIME=1200\&CONT=inin\&LANG=in\&SORT=1\&INT=06}$

This shows the weather for India, and you can see that the airport is near the bottom of the list. We have a calendar on the right, so let's use that for a few dates.

Tuesday 12 Nov 2019 12:30 IST

* North - South | * West - East | * A - Z | * Warm - Cold | * Altitude |

km/h mph kn m/s bft	°F °(
Stations: 35	Temp			
Chennai Intl. Airport (16 m)	33 °C			
Rajiv Gandhi Intl. Airport (617 m)	29 °C			
Thiruvananthapuram (5 m)	31 °C			
Mysore (767 m)	27 °C			
Thiruvananthapuram Airport (64 m)	31 °C			
Mumbai / Santacruz AP (14 m)	32 °C			
Tiruchirappalli Intl. Airport (88 m)	31 °C			
Madurai (131 m)	32 °C			
Dr. Babasaheb Ambedkar Intl. Airport (310 m)	28 °C			
Safdarjung Airport (216 m)	24 °C			
Jay Prakash Narayan Intl. Airport (60 m)	28 °C			
Kolkata / Dum Dum AP (6 m)	29 °C			
Lucknow/Amausi AP (128 m)	27 °C			
Bangalore / Hindustan (888 m)	28 °C			
Hyderabad Airport (545 m)	29 °C			
Coimbatore/Peelamedu (399 m)	29 °C			
Palam (237 m)	24 °C			
Maharana Pratap Airport (514 m)	28 °C			
Gaya Airport (116 m)	28 °C			
Aurangabad Airport (579 m)	28 °C			
Kadapa (130 m)	31 °C			
Porbandar Airport (7 m)	30 °C			
Amritsar Airport (234 m)	22 °C			
Jaipur / Sanganer (390 m)	29 °C			
Ahmedabad Airport (55 m)	33 °C			
Ranchi (652 m)	25 °C			
Mangalore/Bajpe (102 m)	31 °C			
Gauhati AP (54 m)	29 °C			
Dibrugarh Airport (111 m)	28 °C			
Bhubaneswar Airport (46 m)	29 °C			
Lengpui Airport (291 m)	27 °C			
Vadodara (39 m)	30 °C			
Kochi Airport (8 m)				
Vijayawada Intl. Airport (24 m)	31 °C			
Agartala Airport (16 m)	28 °C			

Monday 11 Nov 2019 12:30 IST

km/h mph kn m/s bft	°F °C	
Stations: 34	Temp.	
Mysore (767 m)	28 °C	
Gaya Airport (116 m)	29 °C	
Maharana Pratap Airport (514 m)	28 °C	
Gauhati AP (54 m)	28 °C	
Thiruvananthapuram Airport (64 m)	31 °C	
Bhubaneswar Airport (46 m)	30 °C	
Thiruvananthapuram (5 m)	31 °C	
Rajiv Gandhi Intl. Airport (617 m)	28 °C	
Bangalore / Hindustan (888 m)	27 °C	
Safdarjung Airport (216 m)	25 °C	
Palam (237 m)	25 °C	
Porbandar Airport (7 m)	32 °C	
Kadapa (130 m)	32 °C	
Coimbatore/Peelamedu (399 m)	29 °C	
Lucknow/Amausi AP (128 m)	27 °C	
Mumbai / Santacruz AP (14 m)	33 °C	
Hyderabad Airport (545 m)	29 °C	
Chennai Intl. Airport (16 m)	32 °C	
Kolkata / Dum Dum AP (6 m)	28 °C	
Jay Prakash Narayan Intl. Airport (60 m)	29 °C	
Jaipur / Sanganer (390 m)	28 °C	
Ahmedabad Airport (55 m)	30 °C	
Ranchi (652 m)	26 °C	
Mangalore/Bajpe (102 m)	31 °C	
Vijayawada Intl. Airport (24 m)	32 °C	
Dr. Babasaheb Ambedkar Intl. Airport (310 m)	28 °C	
Kochi Airport (8 m)	31 °C	
Dibrugarh Airport (111 m)	26 °C	
Agartala Airport (16 m)	25 °C	
Tiruchirappalli Intl. Airport (88 m)	33 °C	
Lengpui Airport (291 m)	24 °C	
Vadodara (39 m)	30 °C	
Madurai (131 m)	32 °C	
Amritsar Airport (234 m)	23 °C	

Sunday 10 Nov 2019 12:30 IST

* North - South * West - East * A - Z * Warm - Cold :	× Altitude			
km/h mph kn m/s bft	°F	°C		
Stations: 32				
Kolkata / Dum Dum AP (6 m)				
Bhubaneswar Airport (46 m)				
Thiruvananthapuram Airport (64 m)				
Thiruvananthapuram (5 m)				
Gauhati AP (54 m)				
Lucknow/Amausi AP (128 m)				
Porbandar Airport (7 m)				
Ahmedabad Airport (55 m)				
Vijayawada Intl. Airport (24 m)				
Vadodara (39 m)				
Jaipur / Sanganer (390 m)	28	°C		
Gaya Airport (116 m)	29	°C		
Agartala Airport (16 m)				
Ranchi (652 m)				
Hyderabad Airport (545 m)				
Rajiv Gandhi Intl. Airport (617 m)				
Coimbatore/Peelamedu (399 m)	31	°C		
Aurangabad Airport (579 m)	30	°C		
Mangalore/Bajpe (102 m)				
Bangalore / Hindustan (888 m)	29	°C		
Dr. Babasaheb Ambedkar Intl. Airport (310 m)				
Dibrugarh Airport (111 m)	24	°C		
Mumbai / Santacruz AP (14 m)	32	°C		
Chennai Intl. Airport (16 m)				
Tiruchirappalli Intl. Airport (88 m)				
Lengpui Airport (291 m)	24	°C		
Kochi Airport (8 m)				
Mysore (767 m)				
Jay Prakash Narayan Intl. Airport (60 m)				
Maharana Pratap Airport (514 m)				
Madurai (131 m)				
Kadapa (130 m)	32	°C		

And a few days before the 10th:

Thursday 07 Nov 2019 12:30 IST °F °C km/h mph kn m/s bft Stations: 34 Temp. Kolkata / Dum Dum AP (6 m) 27 °C Mangalore/Bajpe (102 m) 31 °C 31 °C Thiruvananthapuram Airport (64 m) Thiruvananthapuram (5 m) 31 °C Kochi Airport (8 m) 32 °C Jaipur / Sanganer (390 m) 25 °C Mumbai / Santacruz AP (14 m) 30 °C Bhubaneswar Airport (46 m) 29 °C 27 °C Ahmedabad Airport (55 m) Dibrugarh Airport (111 m) 30 °C Gauhati AP (54 m) 30 °C Vijayawada Intl. Airport (24 m) 32 °C Maharana Pratap Airport (514 m) 27 °C Aurangabad Airport (579 m) 30 °C Rajiv Gandhi Intl. Airport (617 m) 31 °C Tiruchirappalli Intl. Airport (88 m) 33 °C Chennai Intl. Airport (16 m) 33 °C Gaya Airport (116 m) 29 °C 31 °C Kadapa (130 m) 21 °C Safdarjung Airport (216 m) 30 °C Agartala Airport (16 m) Vadodara (39 m) 27 °C Palam (237 m) 21 °C 28 °C Lengpui Airport (291 m) Ranchi (652 m) 26 °C Hyderabad Airport (545 m) 30 °C 29 °C Dr. Babasaheb Ambedkar Intl. Airport (310 m) Lucknow/Amausi AP (128 m) 28 °C Coimbatore/Peelamedu (399 m) 31 °C Bangalore / Hindustan (888 m) 30 °C

Now, they all seem rather warm for hail. Remember, that's °C not °F ©

Jay Prakash Narayan Intl. Airport (60 m)

Mysore (767 m)

Madurai (131 m)

Amritsar Airport (234 m)

And hail normally drops when the temperature is around 0°C. So, how can a place like India that had a temperature of 25-29 °C for the past 15 days have hail? Doesn't make sense, so let's assume that hail can't be the cause, unless it was a freak shower.

29 °C 30 °C

21 °C

33 °C

So, has this actually happened in other areas around the lake, in the same year or before, and what (if any) were their conclusions?

Well, in India, I could (only) find these. I say only, as even so it's a large amount. But once I've posted the below links, I will say how close they are to this particular article we're looking at (as the crow flies, on Google Earth)

365km:

https://www.deccanherald.com/national/north-and-central/dead-fish-found-floating-in-ganga-canal-783466.html

267km:

https://in.news.yahoo.com/37-migratory-birds-found-dead-

155746608.html?guccounter=1&guce_referrer=aHR0cDovL3d3dy5lbmQtdGltZXMtcHJvcGhlY3kub3JnL2FuaW1hbC1kZWF0aHMtYmlyZHMtZmlzaC1lbmQtdGltZXMuaHRtbA&guce_referrer_sig=AQAAAGMaeMcQb2DksoXvPQvJ_lDggBTL5RgRkrsCPsuFVTwB2udXQV1xVfs2FCGTmdSDL0BVxJQ-vYPDym_GK0ZBbnU8Zr1KBqDLxcALt_ihqep7tae_W9t_8-kypVehwsjhrkYNYXygwHCrYYa2qhAPiNMGzrs9FQ8uWdc5naEjqasv

2017km:

https://www.thehindu.com/news/national/tamil-nadu/mass-fish-deaths-in-dhanushkodibackwaters-trigger-panic/article29747431.ece

1579km:

https://www.deccanherald.com/city/bengaluru-infrastructure/dead-fish-in-whitefield-lake-raise-a-stink-762904.html

527km:

https://sunpost.in/lightning-kills-200-sheep/

1612km:

 $\frac{https://www.thehindu.com/news/cities/Coimbatore/dead-fish-wash-ashore-at-marundhaandapalli-lake/article29281698.ece$

1120km:

https://mumbaimirror.indiatimes.com/mumbai/other/thousands-of-cattle-dead-city-may-face-milk-crisis/articleshow/70720150.cms

550km:

https://timesofindia.indiatimes.com/city/vadodara/turtles-snakes-fishes-found-dead-at-timbi-lake/articleshow/69919497.cms

1639	km:
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https://www.thequint.com/news/environment/tonnes-of-dead-fish-rotting-in-the-dried-up-thiruneermalai-lake-chennai-water-rainfall

1613km:

https://english.manoramaonline.com/districts/kasaragod/2019/05/24/dead-fish-float-payaswini-river.html

1800km:

https://www.thehindu.com/news/national/tamil-nadu/thousands-of-dead-fish-wash-ashore-near-sathanur-reservoir/article27028889.ece

772km:

https://www.oneindia.com/2006/02/24/over-200-migratory-birds-found-dead-in-mah-bird-flu-ruled-out-1140802023.html

1299km:

https://timesofindia.indiatimes.com/city/bhubaneswar/bird-flu-detected-in-cuttack/articleshow/68661313.cms

1272km:

https://timesofindia.indiatimes.com/city/goa/12-turtle-carcasses-in-3-days-raise-green-alarm/articleshow/68622423.cms

1572km:

https://www.deccanherald.com/city/hundreds-dead-fish-floating-721934.html

1269km:

https://www.orissapost.com/turtle-carcasses-on-rushikulya-coast-raise-concern/

571km:

https://www.ndtv.com/cities/hailstorm-kills-over-thousand-birds-near-pench-tiger-reserve-in-madhya-pradesh-2002079

1318km:

https://odishatv.in/odisha/dead-fish-found-floating-in-sono-river-in-balasore-354861

660km:

https://www.dnaindia.com/ahmedabad/report-204-lions-dead-in-two-years-in-gujarat-2723066

1592km:

https://www.newindianexpress.com/cities/chennai/2019/feb/23/nesting-season-dead-olive-ridleys-near-pulicat-estuary-raises-concern-1942626.html

970km:

https://timesofindia.indiatimes.com/city/pune/dead-fish-in-pavana-river-spurs-concern/articleshow/67858552.cms

1215km:

https://www.newindianexpress.com/states/odisha/2019/jan/31/600-dead-olive-ridleys-washashore-in-two-days-1932401.html

670km:

https://www.greaterkashmir.com/news/chenab-valley/110-goats-die-mysteriously-in-ramban/

1217km

https://timesofindia.indiatimes.com/city/patna/bird-flu-over-2000-birds-culled-in-munger/articleshow/67399525.cms

So, there wasn't anything else within the same year that was nearby.

But there is a conclusion to this case, of which I only just found recently after starting this research. Back in the original article, it stated:

"At initial examination we did not find any sort of secretion from the birds, which is a giveaway in the cases of bird flu," he said. R G Ujjwal, nodal officer, animal husbandry department, joined Rao and listed possible reasons behind the mysterious calamity. "Their could be some sort of contamination in the water. The increased salinity of the water could also be another reason, as it increases salt concentration in the blood, which can further lead to slow blood flow and the internal organs like the brain may stop working," Ujjwal said.

But it looks like that it could be bird flu, as this site states:

"The Indian Veterinary Research Institute (IVRI), Bareilly, on Thursday confirmed avian botulism — a neuro-muscular illness caused by a toxin which is produced by a bacterial strain — as the reason for mass mortality of birds, including migratory species from Northern Asia, at Sambhar Lake in Rajasthan.

The laboratory tests conducted on the samples of carcasses collected from the lake confirmed the disease infecting the birds, the probability of which was earlier stated by veterinarians in the State. The illness, caused by a bacterium called Clostridium botulinum, affected the nervous system of birds, leading to flaccid paralysis in their legs and wings and neck touching the ground."

https://www.thehindu.com/news/national/other-states/avian-botulism-reason-for-bird-deaths/article30043219.ece

Now, what is worrying is that they buried carcasses straight away, as they thought it originally was due to a hail storm, which I ruled out earlier.

Now, unfortunately I can't see the report from their main site:

http://ivri.nic.in/

This does explain what the actual disease is:

http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds/animal-diseases/general-livestock-diseases/avian-botulism

So, looks like that there was a conclusion to this research. Not by me, but by digging around. I initially looked at the article in question, determining if it was near the locations it stated, and then to see if hail was the cause, of which I concluded it wasn't.

Then, looking to see if there were any occurrences in nearby areas, but there wasn't (as in close proximity). Luckily I found another site that explained the outcome.

But you know what; I would like it so much if news outlets could update their pages. So, they get the info, find out the cause, and update the page, and state what was added etc. But nope, they just state 'samples were sent off' and that's as far as we hear.

Anyway, hope you *liked* this bit of research. I do find that animals get looked over, and I would like to look at these in more depth over the year coming. Maybe collate as much as I can, for each month of the previous year, and create a short video. Then, select certain ones (can't do all) that I can delve into. Maybe spot trends, and you never know, hopefully stop more mass deaths.

As always, comments are greatly welcome.