

First things first. The Japanese trawler story is a myth, even though mainstream newspapers were left as red-faced as the general after printing it.

As for the sprats, it is possible that a waterspout did carry them into the sky and drop them onto the village. It is much more likely, however, that seagulls were to blame. I say this because if you've ever seen sprats in August, their peak time, they come into harbours and coves. They do not stay in the open sea where predators such as mackerel and bass can easily kill them. A waterspout can only suck water (apparently) to a depth of one metre. Sprats do not swim at the surface of the sea out of habit. They would only do this if they were being hunted, forming a 'bait ball' that was pushed up to the surface by predators. It would seem like an extraordinary coincidence if they were scooped up at that exact moment in August.

The second most plausible explanation is that a neighbour did it. It is a fishing town, after all, with no lack of fish to spread about. It is important to note that no-one saw the sprats fall from the sky. Why a neighbour would do it I leave up to you. Maybe as a drunken joke.....

The third most plausible explanation is that someone (or the town) is seeking publicity. Greater Yarmouth is now considered the town in England most likely to have an object fall on your head!

There are many towns in America who have grown rich from 'supernatural' or oddly curious events. Bigfoot, the Jersey Devil, the Chupacabra etc. have all driven tourists in droves towards places so remote that seeing an airplane would be newsworthy. It is healthy to retain a degree of scepticism whenever one person and his friend/friends see a miraculous event. For what it is worth, this is my theory on frogs and fishes:

Nearly all these events can be explained by birds dropping them. Let's look at birds dropping fish first. If you have ever seen a crow chase a starling or a blackbird, it is because they want them to drop their food. It is ingrained in birds to flee from predators and get away. If you had a flock of birds being hunted by an eagle or large hawk, odds are that they would disgorge their food in order to become more manoeuvrable.

The same would occur if a large flock of nesting birds were **carrying** fish back to nesting sites for their chicks. They would definitely drop the fish in order to outmanoeuvre a hawk as their first instinct. In many parts of the world, large water birds fly up to fifty miles away from their nesting sites to find fish and frogs. Imagine the heights they climb to in order to return home with fish. If they did drop them in terror, by the time the fish hit the ground, the birds would be long gone from human eyesight.

Many larger birds such as cranes, storks and pelicans prey in swampy environments. They can achieve colossal flocks in countries such as America, Asia, Africa and Europe. In the case of seagulls, this is true of Great Britain and Ireland also. It doesn't seem like too much of a coincidence that it is fish and frogs falling from the sky and not eels. Eels do not congregate in breeding sites in large numbers like frogs do and in large shoals like fish.

It wouldn't take a hawk for them to drop the fish either. Many of the examples given in the book refer to a storm in the distance. If a flock of birds saw that a storm was unavoidable, they would try to rise above it. If they were bloated from fish or frogs, they would inevitably disgorge them in order to become lighter. If they were caught unawares **in** a storm, they would do the same from a sense of self-preservation. If they were actually carrying the fish for their chicks, it would make even more sense. Hence the fact that many people report the fish being alive. Most birds would rather their young eat live fish and carry them that way back to the nest.

The final point is on the issue of the frogs. Frogs have one trait that is almost unique to them. It is the fact that chemicals and toxins leak straight through their skin. If a large flock of birds were to descend on a group of sick (but alive) frogs, they would gobble them up. It mightn't be until they are in the air much later that the stomachs of the birds rebel against them. Then they wouldn't have any choice in heaving them up. In many countries, chemicals from dams, mining, factories and general construction leak into the waterways. Where other amphibians and fish survive, frogs get sick and weak. A group of birds like storks and pelicans wouldn't be able to tell the difference. The last point on frogs is a simple one.

Frogs gather in large numbers to breed. They are much easier to pick off in these numbers by birds. Nature compensates them by allowing them to spawn up to 20,000 eggs in a week. The point is that birds can undergo a glut of feasting during this frog-breeding period. If the frogs are naturally poisonous to them, they will also disgorge them. Sometimes they will be far up in the air before their stomachs realise it.

In summation then, this is why birds, even a large flock, would drop fish/frogs from the sky:

- 1) A predator is hunting them and they drop the fish/frogs they are carrying to a nesting site.
- 2) A predator is hunting them and they disgorge the fish/frogs.
- 3) An approaching storm is unavoidable and they want to rise above it.
- 4) They are caught unawares in a storm (a normal occurrence) and they disgorge the fish/frogs in terror.
- 5) The fish/frogs they ate were alive but poisoned (usually in a shallow pool of water) by chemicals.
- 6) They are seagulls and they are playing or being mischievous. This has been documented.
- 7) A member of an aircraft is sick of the smell of rotting fish. He decides to jettison one box as it might affect the sale price when they land. I believe this happened in 1947 in the U.S.
- 8) Point number 7 above will also explain why tomatoes and coal are falling from the sky. Is it so implausible that crew members would also try to rise above a storm by pressing an eject button? Anything non-natural falling from the sky since 1930 should be treated as a bizarre set of events surrounding an airplane rather than as a tornado.

It is baffling that no-one will take the time to collate the facts surrounding these 'inexplicable' events. They are all credited with being the by-product of a tornado which is proving less and less likely as we study tornadoes. A great project lies in store after this module for your students. They should investigate each story and explain it by asking these questions for each event:

- 1) What was the year, the month and the date involved?
- 2) What country was it?
- 3) What type of fish-eating birds lives in or visits these countries? Separate the two categories and make a list of the times migrating birds visit.
- 4) What time of year do they breed?
- 5) Which of these birds flock together? Cormorants and herons, for example, do not flock together. They can therefore be ruled out of large numbers of fish dropping.
- 6) What type of frog or fish dropped from the sky?
- 7) Work out the nearest body of water to that town or city with Google. Then cross-check if the breeding site/body of water is on the same flight path as the town.
- 8) What type of raptors and predatory birds are native to this area?
- 9) Was there a storm in the distance? How far away was it and would it tally with birds dropping fish to escape it?
- 10) Did the people report fish falling from the sky or did they assume they fell from the sky? Where is the hard evidence? Surely people would hear fish thumping off their roofs and rush out en masse to investigate? If it was post-1990, why wasn't it recorded on a mobile phone?

Finally, let us go through each incident from the book. It would be nice to explain it to the students after they have done their project. Let them be the investigators first and it will teach them a valuable lesson about gathering evidence before coming to conclusions. Let us start by assuming that tornadoes didn't drop the fish and frogs. How then do we explain the examples in the book?

1. Pliny the Elder: They didn't fall from the sky. He assumed they did. With a lack of suitable evidence, that is all we can conclude. If they were catfish, no-one back then knew they 'hibernated' in mud and could come out of the ground in epidemic proportions.
2. 1794. The French soldiers saw toads falling from the sky. Many toads are poisonous. Is it possible that birds ate them by mistake and regurgitated them? The other possibility is that toads were hibernating and when the heavy rain fell, they emerged from the ground. The French soldiers then jumped to the conclusion that they must have come from the sky as there were so many and their appearance was a mystery.

3) 1861. Singapore. The internet doesn't report any evidence they came from the sky in any report. Catfish in Africa can walk miles going from a dried-up pond to a fresh one. Then they bury themselves in mud until the rain comes and hits their dry skin underground. It is interesting that there was an earthquake followed by 3 days of heavy rain. If anything would get the catfish to arouse from their slumber that would be it!

4) 1864. Canada. A small frog is found inside a hailstone. This is one case where a frog was probably swept up into a tornado and froze inside it.

5) 1873. Frogs dropped from the sky during a hailstorm. The birds caught in the hail were terrified and dropped the frogs.

6) 1876. Small chunks of meat fell from the sky. This was proven to be either a vulture or a buzzard. I wouldn't have wanted to be the two neighbours who ate some of the venison!

7) 1900. Rhode Island. Little perch and bull spout are spread out over a number of blocks. This was most definitely birds dropping them from the sky. The farther out the fish are spread, the more likely it is that birds are the case.

8) 1901. Minnesota. Frogs to a depth of several inches are reported, so much so that walking was impossible without killing them. I believe they emerged from the ground after a bumper year. It would be interesting to check if it was in the spring but I couldn't find the date. Maybe your students could and they should check if a period of heavy rain preceded it.

9) 1930. An 8-inch turtle falls during a Mississippi rainstorm. This is the classic case of a bird, probably a raptor, being terrified of a storm. Either that or a crow was frightened by a swooping raptor.

10) June 16<sup>th</sup>, 1940. A shower of 16<sup>th</sup> century coins falls on the village of Meschara, Russia. Whatever caused this, it wasn't a tornado. These came from an airplane. It was the height of WW2 and there are a number of reasons why gold would have been transported in panic across Russia.

11) October, 1947, Louisiana. Black bass, minnows and sunfish rained down in front of U.S. biologist Alan Bajikov. One report mentions that some of them were frozen and some were rotten. That's enough evidence to suggest they came from an airplane. A sunfish can grow up to 11 feet long and is ocean-going! That seems to conclude the argument.

12) 1966. Father Bourne is dashing across a courtyard when a large fish fell from the sky, according to him. It didn't. Someone threw it at him as a prank. The word 'courtyard' infers walls or a building with height from where to throw it.

13) 1976. Blackbirds and pigeons rained down from the sky for two days in California. They were poisoned as California grows all sorts of fruity delectable and these birds are considered pests by farmers.

14) 1981. Greece. Frogs native to North Africa rained down on the village of Naphlion in Greece. Migrating birds caused this to happen. Raptors will actually wait for them along

specific routes and attack them in numbers. They regurgitated or dropped their newly-eaten frogs in panic. Get your students to check the distances involved and the migratory habits of birds in this area.

15) 1989. Australia. 800 sardines pelted the front lawn of a couple's house during a light rain shower. Interestingly, the distance from Ipswich to the sea is the same approximately as the distance from Ipswich to Eagle Heights. This seems to suggest a lot of eagles in the area. One flock of terrified birds could have caused this. Get your students to investigate the distances and answer the 10 questions.

16) 2005. Serbia. Thousands of frogs bombarded the village of Odzaci. Because they are not native to the area, scientists put it down to a tornado. This is unlikely. As we have said before, a tornado would spit them out in different directions. It might also shred them to pieces. Get your students to check the nearest swamp, marsh etc. and also where these frogs came from. Sometimes different flocks of birds will attack each other for food. It doesn't always have to be raptors.

17) February, 2010. Lajamaun, Australia. 2010. Hundreds of spangled perch are still alive when they hit the ground. The photographs are on the internet. This also happened in the 1980's, according to local resident Les Dillon, who saw them drop from the sky while exiting a bar! The fact the perch dropped twice in the same place would seem to rule out an airplane. This is the most interesting case.

The spangled perch is the most widely distributed freshwater fish in Australia. It is believed to be aestivate (i.e. can survive prolonged periods of drought by burying itself). **“This species is often found in large numbers only a few days after rain in locations that were dry just prior to the rain and which have no connection with permanent water.”** (Report available at: [www.nativefish.asn.au](http://www.nativefish.asn.au))

That seems to suggest that they share the same qualities as catfish in turning up at the most unusual places. The spangled perch is one of the most resilient fish in the world and can survive the most hostile water conditions. It cannot be kept in an aquarium because of its aggressive nature to other fish. This final quote from the Australian government report on it seems to give the answer to the riddle:

**“During heavy rain, spangled perch have been seen swimming across flooded fields and along wheel ruts in road trenches.”** (Report available at: [www.fish.wa.gov.au](http://www.fish.wa.gov.au)) .

It is now under an aquatic biodiversity alert in Australia and the government's advice is to kill it if you come across one. Conclusion: This super-successful fish crawls like a catfish at night across fields and drains in order to colonise other places. It is genetically programmed to. It didn't fall from the sky but its achievements in arid Australia are just as remarkable.

The dates in December for the dead birds are revealing. They were roosting in large numbers when fireworks went off. They panicked and torpedoed in all directions, killing themselves. The 85,000 drum were poisoned and it was just a coincidence. Ask your students to research the passenger pigeon as a metaphor for respecting nature. I hope you enjoyed this module.

<b>CAPTION:</b>	
<b>Where</b> is the story set? <b>When</b> did this happen?	<b>Introduction:</b>
<b>Who</b> is involved? <b>What</b> caused the cow to fall?	<b>Paragraph one:</b>
Describe the physical and mental state of the men. Are they lying? Give their story in their words.	<b>Main paragraph:</b>
<b>Why</b> is their story so difficult for the public to believe?	<b>Give public reaction with quotes</b> from different people (and/or the opinion of a scientist).
<b>How</b> is it part of a pattern of bizarre events of falling objects from the sky?	Give some <b>examples in history</b> of strange objects falling. If it is a tabloid article, link it to the end of the world.

<b>AIMS AND OBJECTIVES</b>	<b>INTERNET RESOURCES</b>
1) 2)	1)
<b>MAIN LESSON</b>	<b>OTHER RESOURCES</b>
1) 2) 3) 4) 5)	1) Use print media when covering this topic. Encourage the students to bring in their own newspapers/magazines/articles. Use these to augment the lesson as they are a texture-based aid.
<b>PLENARY/LEARNING OUTCOMES</b>	<b>HOMEWORK IF REQUIRED</b>
1)	

OBSERVATIONS:

