

More recent extinctions:

First, more up to date listings can be found at the IUCN. Try:

<http://www.iucnredlist.org/search/search-expert.php>

(be patient - their interface is not intuitive, but it works)

Searches can be done by taxonomic category, by status (endangered, threatened, etc.), by geographic region, biome, etc.

The listing that comes up provides names of the species, and by clicking on the names, further details about each organism can be pulled up.

This listing shows, the following numbers for extinctions:

- 311 species of mammals
- 129 species of birds
- 680 animals
- 762 organisms

(not clear what time the listing starts at (1600?))

The listing is obviously biased towards larger animals, but those are the ones we usually think about when we think about endangered organisms.

Back to the text:

The main emphasis here is that sometimes we don't know exactly what happened, though humans seem to be involved most of the time.

Lists a much higher number of extinct plants than the IUCN

A very important historical note about collections:

In the late 1800's/early 1900's, museums had an attitude of competition. Each wanted to have the most extensive collection of "specimens". This led to some rather egregious collecting techniques:

- the desert rat-kangaroo was first seen in 1840. By the 1930's only 23 species were found. they were collected and stuffed.

- The elephant seal almost went extinct around the turn of the century (19th/20th). Museums responded with a mad scramble to collect the last

remaining specimens for their collections.

- Rumor has it that even humans were not immune from this collection mania.

- Even these days, many “naturalists” seem to have the opinion that the best place for an animal is in a collection.

Having said that, collections can be a very important aid to understanding species and even in helping the preservation of species.

Collections should be carried out responsibly!

A look at some extinctions since 1600:

Note: One of the main emphases here is that sometimes we can not pin down a cause, even though it “appears” it should be obvious. The authors are very concerned about jumping to conclusions. One needs scientific evidence!

Some birds:

- some are virtually unknown:

Caerulean Paradise flycatcher - known from one specimen in 1873, not seen again for 100 years. Not actually extinct, but seriously endangered. A picture can be found on the web. Considered critically endangered by the IUCN.

Blewett’s forest owlet - six specimens, the last in 1914. One photograph in 1968. Recently rediscovered, though listed at critically endangered.

Jamaican pauraque - three specimens, one possible sighting in the 1980’s. The IUCN believes it’s extinct, but rumors persist so it’s listed as CR.

etc,

In these cases, we simply don’t know enough about the animals to know if a potential cause (e.g. habitat destruction, introduction of exotic species, etc.) might have caused the extinction. We don’t even know for sure if they are extinct!

- a little more information exists for:

Snail-eating coua, a cuckoo from Madagascar. We know it was hunted for food and feathers. Although both rats and forest clearance have been

implicated, the authors don't like either one - the bird disappeared in three years (common in 1831, extinct in 1834).

Canarian black oystercatcher. Uncommon by 1850. The last known specimen was collected with "a long and lucky shot" by an ornithologist in 1913. After a last sighting by the same ornithologist in 1919, it seems to have disappeared (the same ornithologist predicted it's demise!). But unconfirmed sightings continued until 1981, spreading onto the mainland. Bottom line: we don't know if it's extinct (listed as EX by the IUCN).

Guadalupe storm petrel - not seen after 1912. Both feral cats and goats (by clearing forest) were implicated, but not enough is known.

(Incidentally, an internet search turns up both a picture and an ongoing effort to find out if it's really extinct. The IUCN lists it as CR, though again they believe it to be extinct).

Javanese wattled lapwing - habitat disappeared (turned into rice-paddies), but the bird was also hunted, so again the exact cause of extinction is unknown.

Pink-headed duck - not sure why the authors included it in this part of the listing since they admit they have no idea what happened to it (it was common enough to turn up in markets in India regularly). According to the Fish and Wildlife Service this duck is actually only "endangered". Other web sites list it as extinct. Listed as critically endangered by the IUCN.

- Some more information is known for:

Colombian grebe - a combination of hunting, habitat changes, species introductions all contributed, so it's impossible to identify an exact cause of extinction. Listed as EX.

Glaucous macaw - habitat erosion due to conversion of forest into grazing land and the pet trade (even in the 1800's!) contributed to the decline. The authors speculate that since the food supply of this species is still extant (though much reduced), the exact cause of extinction may not be known. According to the IUCN, only rumors prevent this species from being listed as "extinct".

Molokai creeper - disappeared with the arrival of black rats. Timing is almost perfect, so rats probably caused the extinction.

New Zealand bush wren - thought to have been reduced to low numbers by the Polynesian rat, then extirpated by cats and black rats.

- authors give an example of a subspecies living on one of the larger islands off the coast of New Zealand that persisted until the appearance of the black rat which rapidly drove the race to extinction.

- Humans tried to interfere and transfer some of the remaining wrens, but botched it.

Another example of overcollecting:

Great Auk was driven into extinction by museums and egg collectors. The price for eggs went so high that an expedition was actually funded to go get the last specimens.

Some mammals:

For many of these, not much is known. Some interesting examples, though:

Sardinian pika - alive until Roman times. Deforestation and the black rat (again) probably responsible for its extinction. Even early in the history of western civilization there's a record of massive habitat modifications.

Tanzanian woolly bat - only known from a single specimen. The IUCN lists it as DD (Data Deficient), but suspects that it is extinct. The authors make an important point here - some species are so rare or live in habitat that is so difficult to get to that even today we don't have a good idea of how many there might be.

Australian mammals. One of the authors is from Australia, so the text does have a bit of an Australian bias.

Thylacine - a large carnivore, now extinct. Survived on Tasmania until bounties were put on them to protect the sheep industry.

Toolache wallaby - clearing of habitat, bounty and pelt hunting. The last female died in captivity about 1939.

Another eight species are lumped together in the sense that they inhabited similar areas and habitat and went extinct at similar times. But the causes for extinction are not clear. Habitat alteration, the introduction of rabbits, and predation might all have contributed. One interesting sentence

mentions that the rabbit die off due to myxamatosis might have caused sharply higher predation on these species.

Non-Australian mammals.

Greater short tailed bat - Rather bizarre for a bat, it was hunted on the ground and lived in burrows. The arrival of the black rat seems to have wiped out this species. (Exactly how is not known).

Falkland Island wolf - both Darwin and FitzRoy noticed the geographic differences of this wolf from those on the mainland and speculated that it might have “drifted” over. Darwin considered it tame, FitzRoy vicious. The last one was killed in 1876 after a bounty was instituted.

Mexican silver grizzly bear (a subspecies) - hunted, trapped, poisoned out of the southern U.S. Hung on in Chihuahua until 1961 when one bear killed some live stock. An all out effort to eradicate the bear succeeded, though it had been listed as protected in 1960. Due to lack of funds for a reserve it was too late.

Steller’s sea cow - common in the Bering strait. Once the Russians discovered the Bering sea, they managed to wipe it out in only 27 years.

Syrian wild ass - long hunted in the Arabian deserts, but wiped out with the arrival of firearms after WWI.

Przelawski’s Horse - survives in zoos

Quagga - shot by Boers for meat and hides (whips made of quagga hide were prized). By 1820 they were rare. In 1850 a viral disease wiped out more survivors, and the last wild quagga was shot in 1878. A zoo specimen survived until 1883.

The Caribbean monk seal was abundant until hunting for oil and pelts diminished their numbers. It was rare by 1850 but hung on until 1952 (the last known sighting). The last straw was probably fishermen who saw it as a competitor.

The authors go on to list several other species of mammal, but the exact factors causing extinction are not known (the IUCN lists the Omiltene cottontail as CR - an expert examination of a skin in 1998 seems to be from this animal).

A summary of some threats using bird species listed as threatened:

Shows habitat loss to be the most important threat to both continental and island species.

The effects of hunting can not be dismissed.

On islands, predators have a large impact on populations. Similarly, islands also seem more susceptible to such things as pollution, hurricanes, etc.

The authors finish this chapter by pointing out:

- the causes of extinctions are not always known.

- BUT, they suspect that a more detailed analysis of many instances would link these causes to human induced events. Though again, they caution that there is no hard evidence for this.

Next time - some more detailed case studies.