Emperor penguin

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In news- As per a study published in the journal Global Change Biology found that almost all E. Penguin colonies may become extinct by 2100.

Key highlights of the study-

- The study has revealed that by 2100, 98% of Emperor penguin colonies may be pushed to the brink of extinction, if no changes are made to current rates of carbon emissions and climate change.
- Around 70% of colonies will be in danger sooner, by 2050.
- The new study **looked at overall warming trends and the increasing likelihood of extreme weather fluctuations** due to global warming.
- The study noted that e**xtremely low levels of sea ice in 2016 led to a massive breeding failure of an Emperor penguin colony** in Antarctica's Halley Bay.

About Emperor penguin-

- **Scientific name:** Aptenodytes forsteri.
- Wild Emperor penguins are only found in Antarctica.
- **It is the largest member of the penguin order (Sphenisciformes),** which is known for its stately demeanor and black-and-white coloration.
- It is also the tallest and heaviest of all living penguin species.
- Emperor penguins **breed exclusively in Antarctica during winter.**
- The species gathers together into approximately 50 colonies that settle on ice shelves and landfast ice along the coastline of Antarctica.
- **Its diet** consists primarily of fish, but also includes crustaceans, such as krill, and cephalopods, such as

squid.

- They **endure temperatures of minus 40 degrees Celsius** and wind speeds approaching 144 kilometers per hour by huddling together in groups of several thousand birds.
- But they **can’t survive without sufficient sea ice.**
- The penguins **breed on fast ice, which is sea ice attached to land**.
- Sea ice is also important for resting, during their annual moult and to escape from predators.
- Emperor penguins are **capable of diving to depths of approximately 550 metres** (1,800 feet) in search of food; they are the **world’s deepest-diving birds.**
- It has several adaptations to facilitate this, including an unusually structured haemoglobin to allow it to function at low oxygen levels, solid bones, the ability to reduce its metabolism and shut down non-essential organ functions.
- T**he greatest threat emperor penguins face is climate change.**
- IUCN Conservation status: **Near threatened**