

Earthweek: Diary of a Changing World

Week ending Friday, June 27, 2025

By Steve Newman

Inevitable Warmth

Scientists warn that by early 2028, the world is likely to have released enough greenhouse gases to make exceeding 1.5 degrees Celsius of long-term warming nearly unavoidable.

A report from the Global Climate Change Indicators initiative finds the remaining “carbon budget,” the amount of CO2 that can be emitted before crossing the threshold, could be used up in less than three years.

The world emits about 46 billion tons of CO2 annually, rapidly shrinking the time left to limit warming.

If the 1.5-degree limit is passed, more destructive heat waves, droughts, storms and sea rises will be likely.

But scientists say the pace of carbon emissions is accelerating, leaving little room for optimism.

Earthquakes

A tremor caused minor damage in the eastern Dominican Republic and knocked out power in northwestern Puerto Rico.

• Tremors were also felt in Trinidad, the Aegean Sea, northern Iran, Hong Kong and the southern Philippines.

Orca Grooming

Killer whales have been observed breaking off pieces of seaweed to rub on each other, in what scientists say is the first evidence of cetaceans using a tool.

The behavior, documented in the journal *Current Biology*, was observed among the endangered southern resident orcas off northwestern Washington state and Vancouver Island.

Using their teeth to tear kelp, whales then press the seaweed between themselves and a partner in synchronized rubbing sessions called “allokelping.”

Scientists say the action likely helps remove dead skin and seems to have both hygienic and social purposes.

But with the population now down to just 73 individual orcas, researchers warn this unique behavior may soon disappear, along with the whales themselves.

Tropical Cyclones

Super Hurricane Erick weakened to a Category-3 storm just before making landfall on Mexico’s Oaxaca state, killing one person in flash flooding.

Erick was the first storm on record of Category-3 force or greater to strike Mexico before July.

• Tropical Storm Andrea, the first named storm of the Atlantic hurricane season, formed briefly in the mid-Atlantic.

• Tropical Storm Sepat lost force before its remnants brushed the Japanese coast near Tokyo.

Lion Recovery

India’s Asiatic lion population has grown by more than a third in five years, reaching 891 animals, according to a new government census.

Once widespread across the Middle East and India, the lions now exist only in Gujarat’s Gir forest, where decades of conservation work have helped the species recover from a low of only 20 individuals in 1913.

Despite the success, conservationists warn that having all the lions in one location increases their vulnerability to disease, natural disasters and genetic inbreeding.



Asiatic lions are a major tourist draw to western India’s tiger reserve, which receives more than a half-million visitors annually. Photo: Nehal Shaikh

-100°
South Pole,
Antarctica

‘Tropicalization’

Spanish researchers say the waters around the Strait of Gibraltar and in the Alboran Sea are undergoing “tropicalization” as rising temperatures drive an influx of warm-water fish species.

A study at the Spanish Institute of Oceanography recorded 25 species new to the region, many of them preferring waters almost 11 degrees Fahrenheit warmer than native species.

The arrival of tropical species such as lionfish and whale sharks is displacing those natives, which the researchers warn could destabilize local marine ecosystems.

Scientists say the trend is being fueled by a mix of climate change, exotic species introductions via ships and aquaculture, and increased human activity.

Eruption

Indonesia’s Mount Lewotobi Laki-Laki produced its third major eruption of 2025, sending ash almost 7 miles into the sky. The blast forced more evacuations and disrupted flights to and from the nearby resort of Bali.

Dist. by: Andrews McMeel Syndication
©MMXXV Earth Environment Service