



# MONTEREY NEWS

January 2024  
Est. 1970 Vol. LIII • Number 1



## The Godwit Wonder Bird

The godwit is a remarkable member of the sandpiper family whose plumage includes a long black tail and underwings, a long pinkish colored bill that towards the tip turns up to the sky perhaps explaining why they are called “wonder birds.” But there is another reason to regard them as “wonder” birds. Most godwits breed within the northern-most boreal woodland habitat of the Arctic. It is called “the wonder bird” for annually migrating of thousands miles from northern Alaska all the way south past the equator to the distant regions of Chile in South America, or to New Zealand.

The Arctic tern flies a longer roundtrip distance, as much as 19,000 miles, from the Arctic circle to the Antarctic circle every year, but the godwits’ incredible journey of nearly 7,000 miles is made without stopping at all for such a long distance. The godwits’ pre-flight preparation is much more intensive. They double their weight by adding body fat from gorging on worms and dime\_size clams. Fat provides twice the energy of carbohydrates or proteins. During these long distance flights they do not stop to rest or take in food. Scientists believe they shut down part of their brain to “sleep” while continuing flight.

Medical research, by studying the super powers of migratory birds may



lead to breakthroughs for human application. Migratory birds can sleep while they fly by getting shut-eye on one side of the brain while the other stays awake and alert, and then switching sides, a process called “slow wave switching hemisphere sides.” Dolphins and whales can take a nap this way as well. Godwits can also somehow store air after it passes through their lungs and then breathe with it again.

The godwits face challenges for such epic journeys crossing continents and huge ocean distances as well as tests that lie ahead such as changing weather and difficult topography. They navigate according to the sun during the day-

time, star positions at night, and a sense of the Earth’s magnetic field, homing in to the same destination areas year after year. They fly at high elevations where the air is less dense and headwinds are minimal. Their feathers are not fully waterproofed with oils so landing in water would be deadly.

The godwit’s impressive migrations between the two coldest regions on the globe bring us to wonder what secrets they and other species have that might benefit all mankind.

— George B. Emmons