

It's the stuff of legend: The reptiles never existed on the Emerald Isle.

Open cloze: Write only one word in each blank.



St. Patrick's Day, which is celebrated worldwide on March 17, honors St. Patrick, the Christian missionary who supposedly rid Ireland _____ snakes during the fifth century A.D.

According to legend, the patron saint of Ireland chased the slithering reptiles into the sea after they began attacking _____ during a 40-day fast he undertook on top of a hill.

It's admittedly _____ unlikely tale. Ireland is one of only a handful of places worldwide—including New Zealand, Iceland, Greenland, and Antarctica—that Indiana Jones and other snake-averse humans can visit without fear.

But snakes were certainly not chased out of Ireland by St. Patrick, _____ had nothing to do with Ireland's snake-free status, Nigel Monaghan, keeper of natural history at the National Museum of Ireland in Dublin, told National Geographic.

Monaghan, who has trawled through vast collections of fossil and other records of Irish animals, has found _____ evidence of snakes ever existing in Ireland.

"At no time _____ there ever been any suggestion of snakes in Ireland. [There was] nothing for St. Patrick to banish," Monaghan said.

So what did happen?

Snakes likely couldn't reach Ireland. Most scientists point to the most recent Ice Age, _____ kept the island too cold for reptiles until it ended 10,000 years ago. After the Ice Age, surrounding seas may _____ kept snakes from colonizing the Emerald Isle.

No Leg to Stand On

Once the ice caps and woolly mammoths retreated northward, snakes returned to northern and western Europe, spreading as _____ as the Arctic Circle.

But snakes have _____ existed in Ireland for thousands of years. Britain, which had a land bridge to mainland Europe _____ about 6,500 years ago, was colonized by three snake species: the venomous adder, the grass snake, and the smooth snake.

But Ireland's land link to Britain _____ cut some 2,000 years earlier by seas swollen by the melting glaciers, Monaghan noted.

Animals that reached Ireland _____ the sea became an impassable barrier included brown bears, wild boars, and lynx—but "snakes never made it," he said.

"Snake populations are slow to colonize new areas," Monaghan added.

Mark Ryan, director of the Louisiana Poison Center at the Louisiana State University Health Sciences Center in Shreveport, said in 2008 that the timing wasn't right for the sensitive, cold-blooded reptiles to expand _____ range.

"There are no snakes in Ireland for the simple reason they couldn't get there because the climate wasn't favorable for _____ to be there," he said.

Other reptiles didn't make it _____, except for one: the common or viviparous lizard. Ireland's only native reptile, the species must have arrived within the last 10,000 years, according to Monaghan.

Pagans: The Metaphorical Snakes

So _____ St. Patrick couldn't tell a snake from a lizard, where does the legend come from?

Scholars suggest the tale is allegorical. Serpents are symbols of evil in the Judeo-Christian tradition—the Bible, for example, portrays a snake as the hissing agent of Adam and Eve's fall _____ grace.

The animals were also linked to heathen practices—so St. Patrick's dramatic act of snake eradication can be seen _____ a metaphor for his Christianizing influence.

"Fake" Snake

Anyone in Ireland looking for serpents to exile would probably have to settle for the slow worm, a non-native species of legless lizard that is often mistaken _____ a small snake.

First recorded in the early 1970s, the species is thought to have _____ deliberately introduced in western Ireland in the 1960s, according to Ireland's National Parks and Wildlife Service.

However, the reptile doesn't appear to have spread beyond a wildlife-rich limestone region in County Clare known as the Burren.

Snakes on an Irish Plain?

In the future, genuine Irish snakes are a possibility, Monaghan said.

Pet snakes deliberately released _____ their owners would be the most likely source, though they wouldn't _____ welcome.

"No alien species is without risk to well-established fauna," Monaghan explained. "The isolated nature of an island population makes Ireland highly vulnerable to any introduction, no _____ how well-meaning or misguided."

Henry Kacprzyk, curator of reptiles at the Pittsburgh Zoo & PPQ Aquarium, said in 2008 that Ireland's indigenous wildlife would not be prepared for snake introductions.

Invasive snakes such as the brown tree snake have already wreaked havoc in Guam and other island ecosystems, he added.

Nor would getting _____ of any such unwanted creatures be as easy as St. Patrick made it look.

"I don't want to completely burst the celebratory myth of St. Patrick," Kacprzyk said. "I want to keep some of it alive."