

STAMP STORIES

Jack R. Congrove, BU1424

Jack Webb (1920–1982) was a quadruple threat in Hollywood, achieving success not only as an actor, but also as a writer, producer, and director. In 1957, Webb produced, directed, and starred in *The D.I.*, a movie about a Marine Corps drill instructor and his platoon of recruits at Parris Island, South Carolina.

Webb, as Gunnery Sergeant James Moore, spends a lot of effort trying to make a Marine out of Private Owen. During a 20-mile march, Moore orders the platoon to take cover and “freeze.” While in position, Owen swats and kills a sand flea crawling on his face.



Parris Island postmark 1 July 1923

Moore immediately confronts him, “For the sting of one lousy...flea, you just killed this whole platoon!” When the recruits return exhausted to their barracks, Moore informs them that after chow, they will march back to the position and, “You will find that exact same sand flea and you will bury it.”

That night at the position Moore sets three recruits to work digging a grave. Of course, this grave must be six feet long, three feet wide, and six feet deep and they must use the Marine Corps method, which involves two men in the hole shovelling dirt out and one man above shovelling dirt back in.

Meanwhile the rest of the platoon searches for the carcass of the murdered sand flea. During this search, one of the recruits kills another flea crawling on him and he and his buddies get an idea. “Sergeant, I found it!” he yells out.

Moore comes over, takes the flea, closely inspects it, and then calls out, “Owen, was that a male or a female sand flea that you killed?” From the looks on the faces of Owen and his buddies, they know that no matter what he answers, it will be wrong.

Despite the humor of this scene to an outsider, military training is serious business and drill instructors want to make sure that no one will look back and say, “if only your training program had done its job...”

“Sand flea” bites can also have serious consequences. The term “sand flea” can refer to many species of animals. True sand fleas are actually crustaceans, not insects. They belong to one of more than 50 genera in the family Talitridae. The name “sand flea” for these animals is misleading because they do not bite people. However, having one crawl on your face would certainly be irritating. The animal in this movie appears to be one of these.



“Beach Flea,” Talitridae
Senegal, 1989, Sc#846

Bites attributed to animals called “sand fleas” are usually from insects known as sand flies. This term applies to different species depending on the part of the world where they are found. Sand fly bites may leave large, red itchy bumps that may turn into a rash. These bumps are frequently several times as itchy as mosquito bites, and tend to last longer as well.

Sand flies are distributed world-wide in zones with temperatures above 60°F for at least three months of the year. Most are members of the Phlebotominae subfamily of the family Psychodidae. Genera of this subfamily are the primary vectors of leishmaniasis and pappataci fever. Both diseases are confusingly referred to as sandfly fever.

The genus *Lutzomyia* has nearly 400 species and has the largest distribution range in the U.S. They are found as far north as New Jersey and as far south as Florida. Thirty-three of these species are known to be vectors of disease. This genus is quite old. Some species have been found in 25-million year old fossil amber.

The females have to ingest blood in order for their eggs to develop. The males do not feed on blood.

Leishmaniasis is caused by protozoa of the genus *Leishmania* carried by these insects. Currently, as many as 12 million people may be infected with this disease worldwide.



Insect in amber
Poland, 1993, Sc#3139

The disease commonly presents in cutaneous form, which results in skin lesions. Other forms produce ulcers in the nose and mouth. The most serious form causes fever and severe damage to internal organs.

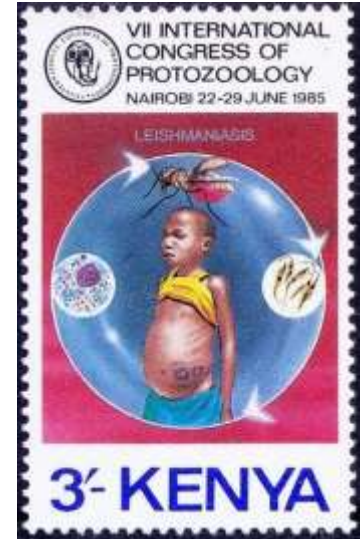
Prevention involves use of netting while sleeping and insect repellent. Because dogs and other animals are susceptible to this disease also, insecticide-impregnated collars are useful. Spraying to kill the insects is also recommended.

Treatment is dependent upon the protozoan species. It typically involves ingestion of antifungal medications such as Amphotericin B. Various topical treatments may be used for the cutaneous form.



Dr. Gaspar Vianna & *Leishmania* Protozoa
50th anniv. Leishmaniasis Cure
Brazil, 1962, Sc#938

Gaspar Vianna (1885–1914) was a Brazilian pathologist and researcher. His most important work was the discovery of the cure for leishmaniasis, which helped save the lives and end the suffering of millions of people worldwide.



Leishmania Lifecycle
Kenya, 1985, Sc#338

ROYAL WEDDING

As I write, the royal wedding of Prince Harry and Meghan Markle has taken place and according to the analysts, it was witnessed by two billion people worldwide. I confess that I was one, although I am usually not interested in weddings even when I personally know those involved. The British certainly know how to put on a spectacle.

I was going to start by stating that these stamps have nothing to do with biology. But if you stop and think about it, they represent everything to do with biology.



The process of courtship and mating is driven by nature and nature has designed males and females to work together.

As psychologist Helen Fisher has observed, no other aspect of human behavior is so complex, subtle, or pervasive as the mating game. The essential choreography of human courtship, love, and marriage seems etched into the human psyche, the product of time, selection, and evolution.

I admire Prince Harry above the other members of Britain's royal family mainly due to his unselfish, and one should say, patriotic, military service to his country. He went to great effort to serve not one, but two combat tours in Afghanistan. He is an expert and apparently natural helicopter pilot.

I know little about his bride, but clearly they are attracted to and love each other. I wish them a long and happy life together.