

Monk parakeets may fowl up North America

In the late 19th century, a small number of starlings were imported to the United States from Europe. They began multiplying and spreading throughout the United States until today they are the most numerous of all birds in North America and probably the most disliked. Now, wildlife officials around the country fear the phenomenon may be repeating itself, only this time the bird is the dreaded monk parakeet (*Myiopsitta monachus*) from South America.

Originally brought to the United States as an exotic pet, the small subtropical parakeet has been spotted free-flying and successfully nesting and reproducing in 22 states. Despite sub-freezing winter temperatures, some 200 to 300 monk parakeets are known to be living in the New York metropolitan area alone. From 1968 to 1972, more than 50,000 monk parakeets were imported to the United States. It appears that the birds are introduced into new areas by escaping from or being released by their owners rather than by population expansion or migration.

The parakeets are distinguished by a light gray forehead, crown and breast with light green upper tail coverts, wing coverts and back feathers. The tail has dark green feathers with dark blue rachis. The birds average 11 to 11½ inches in length.

Monk parakeets are sociable. They live in small communities sharing large common nesting structures usually cylindrical in shape and three to four feet long by two feet deep. Made with young twigs one to two feet long, the nests have one or more entrances on the lower side that lead to small compartments within. One pair of monk parakeets were found nesting on top of the Civil Defense Tower in Silver Spring, Md. The largest nest found so far is six feet long by four feet deep with eight entrances.

In Argentina, Bolivia, Brazil, Paraguay and Uruguay, the monk parakeet is an agricultural pest. The bird has been known to damage up to 45 percent of such crops as sunflower, corn, sorghum, millet and citrus fruit. The Argentine Government has been attempting to eradicate the parakeet since 1947.

Though the monk parakeet population in America is at present too small to cause severe agricultural damage, wildlife officials are taking measures to exterminate or control the birds before they become a serious threat.

"We already have received reports of localized damage—damage to fruit and decorative trees in the vicinity of nests," says Douglas Roscoe of the Wildlife



Richard A. Rowlett

Monk parakeet captured in Maryland.

Research Laboratory in Delmar, N.Y. "In view of the bird's feeding habits and the agricultural damage taken place in South America, we are moving quickly to prevent the same thing from happening here."

When imported to America, the parakeets were sprayed and checked for disease. Consequently, those now in the wild are extremely clean and healthy birds. "The monk parakeet in the United States does not have its traditional predators nor diseases to keep its population down," says Roscoe. "The only remaining limiting factor is food which they can locate easily. The parakeet can proliferate quite nicely."

Wildlife pathologists and biologists in Delmar are shooting the birds and destroying all nests and eggs found. □

Tunnel linking Britain, Europe gets green light

A project engineers have dreamed about for more than a century and a half has been given an all-but-final go-ahead. Britain last week announced approval of plans to construct a tunnel beneath the English Channel to link Britain and France. The French have long favored the tunnel, and a treaty to allow drilling to begin is expected to be signed Nov. 15.

The 32-mile-long tunnel, 23 miles of it beneath water, will consist of two parallel reinforced tubes cut through the chalk channel bed. Each tube will carry one railroad line. A third tube between them will allow ventilation and servicing and help relieve the push of air from trains passing through the tunnel at 80 to 90 miles an hour.

The \$2 billion, half-British, half-French project is scheduled to be completed by 1980. The tunnel, from Folkestone, near Dover, in England to Calais in France, will bring to fruition plans that have been discussed on and

off with various degrees of controversy throughout the 19th and 20th centuries. Napoleon was presented with the first blueprint for a Channel tunnel in 1802.

Plans include a high-speed rail link from London to the British end of the tunnel, and a corresponding rail link to Paris on the other end. The French also plan a six-lane highway on their side. Projections call for 30 million passengers and 10 million tons of freight going through the tunnel by 1990. Planners hope passengers will be lured by the 3½-hour trip from London to Paris (about what it takes by plane, counting airport delays). Special trains, to leave as frequently as every 4 minutes, will shuttle cars and trucks through the tunnel in 35 minutes. □

Did a black hole collide with the earth in 1908?

On June 30, 1908, a strange object streaked to earth in the Tunguska region of Siberia, leaving a visible fiery trail in the air and setting off a blast wave that leveled trees over hundreds of square kilometers. The Tunguska event has been attributed to a number of causes: a large meteorite or a comet among other more bizarre possibilities.

Yet it remains a mystery. If it was a meteorite, meteoritic debris and a crater should have been left behind. No evidence of either has ever been found. Yet something extremely energetic happened: An explosion releasing an estimated 10^{22} to 10^{24} ergs of energy (equivalent to a 0.2 to 20 megaton nuclear explosion) would be necessary to destroy forest over such a large area.

Now two physicists working at the University of Texas at Austin, A. A. Jackson IV and Michael P. Ryan Jr. (now at Oxford University), suggest that it may have been a tiny black hole that collided with the earth at Tunguska that day.

Black holes, enormously dense objects that have condensed under their own gravity to the point where neither matter nor radiation can escape from them, entered theoretical physics as one of the possible end points in the evolution of stars, and it was generally thought that to form a black hole a mass of stellar size was needed. Lately Stephen Hawking of Cambridge University, one of the foremost experts in the field, has shown that very small black holes could have been formed in the big bang that started the universe. Others believe that small black holes could form in collisions between larger ones by a kind of fragmentation or in the meeting of trains of gravity waves.

In the Sept. 14 NATURE Jackson and Ryan suggest a black hole of the mass of a large asteroid (10^{20} to 10^{22} grams) could have caused the Tunguska ex-