

Kid's KOrner



Animals punching time clocks? Animals doing men's work? Read our story about working animals. Then color these characters to get them ready for work.

Blue Collar Beasts?

Some animals perform jobs better than man

Since prehistoric times, humans have domesticated and trained animals to help them perform onerous chores. It started with cavemen training dogs to help in the hunt, and today people are still dreaming up new schemes to make animals do their dirty work.

Over the years pigeons, especially, have been found to be cooperative workers. "During the four-month Prussian siege of Paris in 1870, pigeons carried hundreds of thousands of official and private messages to and from the outside world," says the National Wildlife Federation's bimonthly publication. "The messages were inserted in a small goose quill and attached by waxy silken thread to the strongest tail feather."

During World War II British forces dropped pigeons in baskets from airplanes so that local residents could retrieve them, attach any information that might be of interest to allied forces and then release the birds. After circling the area once or twice the pigeons would head for home, perhaps hundreds of miles away.

Researchers now think pigeons may have a future as assembly line inspectors — checking for defects in drug capsules or electronic equipment, for example. Human inspectors tend to make errors about 15 percent of the time, whereas pigeons make errors only one percent of the time, one psychologist found.

"And they don't get bored," adds National Wildlife. "Studies have found that they can remain on the job for three days straight without sacrificing accuracy. The birds do loaf on the job, though, so most pigeon projects call for three birds inspecting in tandem, each a check on the others."

The technique used in training pigeons and other animals is called positive reinforcement, developed by B.F. Skinner, the famed behaviorist. It involves using food as a reward — when, for instance, a pigeon spots a defective drug capsule — and ignoring wrong behavior. Animals are not starved. The reward is part of a daily ration.

British submarine commanders employed this technique during World War II. Their submarines would release large amounts of bread in the water, and gulls would flock to it. After a while, the birds gathered naturally at the sight of a long, dark shadow sliding underwater. Spotters ashore alerted the authorities. No one knows how many German U-boats fell victim to a flock of hungry gulls.

Positive reinforcement has also been used to train macaques, short-tailed monkeys, to harvest coconuts from the tallest palms in the field of southern Thailand. And in Boston, a capuchin monkey named Hellion does household chores for a 24-year-old man who is paralyzed from the shoulders down as a result of a car accident. Hellion can turn on the lights, put cassettes into a tape recorder, retrieve food from the refrigerator and feed her owner.

The military has a long history of putting animals to work. In one battle with the Romans, Hannibal set elephants in his front lines, ready to charge. His plan backfired, however. Spooked by trumpets and irritated by the enemies' darts, the elephants turned and stampeded into their own cavalry.

Today, the U.S. Coast Guard is training pigeons to spot orange, yellow, and red — the colors of life

jackets, buoys, rafts, and flags. The pigeons will be carried in a plexiglass bubble beneath a helicopter and will peck at an electrical switch when they see these colored objects floating on the ocean below.

The Navy, meanwhile, has long used sea lions and other marine mammals to retrieve or deliver objects at great depths. "Apparently," says National Wildlife, "they work better than humans, who require scuba gear, decompression chambers, medical

personnel, good weather, and a few days to complete a mission."

A Navy porpoise has carried tools and messages to aquanauts in a lab 200 feet below, off the California coast. Sea lions have recovered ant submarine test rockets at depths of 490 feet. And a killer whale has been trained to recover dummy torpedoes from depths of 1,600 feet.

During World War I, pigeons were commonly used as "spies," carrying messages back and forth across enemy lines.

Whenever the Germans occupied new territory, they made it a practice to destroy all the pigeons in the area. An estimated one million Belgian pigeons were captured or killed in that war. Probably the most famous was Cher Ami, a plucky British racing pigeon. When an American battalion advanced too far ahead of its lines, it was surrounded, and neither humans nor birds could get through heavy fire to report the

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Who me? Work!?! Those other animals may be dumb enough to work, but I keep busy running around on the range all day looking mean. Besides, I'd like to see the guy that would try to make me work..."