

Bird wars

by Jack Wagner

The domestic pigeon, a 30-million-year evolutionary success story, is a descendant of the European rock dove. Common throughout the world, the pigeon is now regarded as the primary urban pest bird. Originally introduced as a "domesticated" bird, the rock dove's natural habitat was on rocky cliffs with protective ledges. By contrast, today's "street" pigeon seeks a similar architectural nook as an overnight roost: recessed window ledges, eaves, parking garages and billboards. Daytime loafing sites run the gamut, from balconies to billboards.

Since pigeons mate for life and have a voracious sexual appetite (starting as early as four months of age), it is not unusual for a pair to produce more than 10 young per year. The squabs are airborne within two months and generally roost in the same area. It does not take long before the flock number increases dramatically. With a life span of 10 or more years, no city-dwelling predators, and an unending food supply, the population increases exponentially.

The street pigeon, unlike any other species, will soil its own nest. Their droppings cause hundreds of millions of dollars in damage to property.

Feathered pests in society

Bird lovers abound in every city. Feeding the birds provides a pleasant diversion to city dwellers deprived of "wildlife." There is a certain mystique associated with birds; witness the "little old lady in the park" with her bag of popcorn feeding the pigeons. Realistically, these aptly named air rats, through their droppings, are carriers of several serious diseases, including histoplasmosis, encephalitis and salmonella. Pigeons are also the hosts for various parasites such as fleas and ticks.

Not all of the blame is due to pigeons. Starlings, numbering in the thousands,

are not an uncommon sight at power plants, city parks and office buildings. Seagulls in coastal areas (and moving increasingly inland) will often occupy an entire acre-sized roof or parking lot.

More alarming are the instances of bird strikes to aircraft. Damage to aircraft exceeds \$50,000,000 annually. In a futile attempt to prevent bird strikes at JFK Airport, the USDA killed 28,000 gulls. Within a year, 14,000 had re-nested owing to adjacent breeding grounds.

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Aquatic and flocking birds cause an estimated \$100,000,000 of damage to United States agriculture annually. Even the seemingly innocent house sparrow causes enormous problems for the food industry. An extremely agile and intelligent bird, the sparrow will "hitch a ride" on a forklift to gain entry to a birdproofed building.

Bird management

The variety of species of birds, and their ability to adapt to any architectural environment, has brought businesses affected by bird droppings to the brink of the "bird wars." The field general against this onslaught rightfully is the pest control industry. Pest control operators are required by state and/or federal law to maintain a more-than-passing knowledge of bird behavioral patterns and acceptable control measures. Until recently, the pest control operators' arsenal consisted of sticky gels, "porcupine spines" (inferior netting), and the use of toxic baits.

The Europeans, beset with more than their share of bird problems (annual costs exceed \$10,000,000 in the United Kingdom alone), have entered the fray with an impressive array of sophisticated, state-of-the-art bird control systems, such as the low-profile post and tensioned wire and one-piece "invisible" netting systems.

Health and legal concerns

Prior to undertaking any bird proofing, the infected area must be clean. Removal of bird droppings can be hazardous to your health and must be conducted safely and expeditiously. Protective clothing and use of a respirator is recommended. Also, it should be noted that migratory birds and endangered species are protected by a myriad of federal, state and local regulations.

Historical and aesthetic considerations

A study of bird deterrent systems in 1980 performed for the General Services Administration (GSA) by the architectural firm of Cooper-Lecky found that neither audio repulsion, "scare" devices, nor poison baiting have a long-term effect on pigeons and starlings in an urban environment. The study also concluded that most tactile deterrent systems are harmful and ineffective.

The ideal bird deterrent system should be inconspicuous and chemically compatible with the building components. The system should be reversible so that, if removed, the building could be restored to its original state. Moreover, the system must be easily accessible for building maintenance.

Control measures

Among the popular methods of population reduction are the use of toxicants mixed with grains, and shooting or live trapping. These techniques are labor-intensive and usually prompt an adverse public reaction. Moreover, the

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removal of a portion of the flock creates a vacuum effect. As birds are then less abundant, there is less competition for food and shelter, and the remaining birds respond by increasing their breeding. Also, birds from other areas move in to exploit the extra food supply. An endless cycle begins with pigeons breeding and repopulating an area just as quickly as they can be killed. Accordingly, it makes more sense to concentrate on prevention and birdproofing.

Choice of birdproofing system

All systems have advantages and disadvantages, and often, a combination of several systems is necessary, particularly when the area to be treated is a protected overnight roost. Over the last few years, the quality of birdproofing materials has improved dramatically and a number of new anti-roosting systems have come on the market. An overview of these products is given below.

Visual and audio devices such as owls or snakes and ultrasonic signals are low-cost items and generally produce low results as birds quickly figure out that a stationary "predator" is not a threat. Also, the EPA has decreed that ultrasonic devices are totally worthless*. However, birds have a highly developed sense of sight and are particularly alert to moving and brightly colored objects. Inflated "scare eye" balloons and mylar tape that move with the wind produce a startle effect that will dissuade native birds — but not pigeons — on a short-term basis from a given area, especially if accompanied by an alarm and/or predator calls.

Distress calls of a startled or injured bird are available on microchips that can be regulated by a motion sensor and

timer. The units are programmed to be species-specific as there is no generic distress call that will repel all types of birds. Distress calls are not effective against pigeons. Generally, these deterrents are only temporary at best and should be repositioned periodically and re-enforced with pyrotechnics and other scare devices.

Chemical repellents are non-toxic, sticky gels. Gels are available in cartridges and are inexpensive, easy to apply, and can be quite effective against pigeons and starlings. However, the disadvantages are a short life and the risk of feather entanglement. Worse, the gel can cause permanent staining to the building's facade as air pollutants are attracted to the sticky surface and will run off in rain or intense heat.

Trapping, while very humane, is labor-intensive and impractical. It is difficult to capture the entire flock and new birds move in to fill the vacuum. Also, even though birds are released at a new location, they usually return to the original nesting site.

Toxic baiting, also an expensive and ongoing undertaking, is a very effective method of reducing or relocating large flocks of birds. It is imperative that a baiting program be carried out by a licensed operator, with an effort made to avoid public scrutiny.

Mechanical barriers are available in a bewildering array of stainless steel and plastic spike or coil configurations. Although inexpensive and easily installed using silicone or screws, these systems are visually conspicuous at low levels. Most systems are effective against pigeons and gulls but not starlings or sparrows. Disadvantages include a tendency to entrap debris, and recurring nesting, which results in periodic

maintenance.

Electric devices are grounded, low-amp wiring systems that repel birds with a non-lethal, pulsating shock. Although inconspicuous and very effective, electric repellent systems are initially expensive to install and require periodic maintenance.

Post and wire systems have been used in Europe for over 20 years. This inconspicuous and inexpensive system consists of a thin nylon-coated stainless steel wire that is spring-tensioned to narrow posts. Easily installed with an extensive selection of accessories for virtually any architectural configuration, the system is effective against pigeons and gulls, but not starlings or sparrows. The system is also effective against aquatic birds in open areas such as ponds or parking lots. While the most versatile and least expensive of all the available systems, installation of trip wires is an artistic endeavor and requires a modicum of mechanical know-how.

Netting, last but not least, is the most effective barrier available to deny all species of birds a roosting or breeding site on any structure. Netting is strong, weatherproof, effective against all species, and is relatively inexpensive. However, considerable skill is required for permanent installation. Nets are very inconspicuous and can be color-coded to effect a virtually invisible finished product. This technique provides a long-term (10+ year) solution and should always be the first method considered.

In addition to an integrated bird management system, basic bird control involves elimination of nests, food, water and shelter. Selection of the correct system or combination thereof is critical in preventing re-roosting. After all, they're not called *homing pigeons* for nothing.

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*See COPESAN Services' Pest Control Sanitation Newsletter, 2nd Quarter, 1992, regarding information on preventive pest control and sanitation techniques researched and prepared by C. Douglas Mampee, M.S., Ph.D.

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