

United States Department of Agriculture  
Animal and Plant Health Inspection Service  
**Wildlife Services**

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*Fact Sheet*  
**MANAGING GULL DAMAGE**

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January 2003

**Background**

Four species of gulls commonly occur in New Jersey, along the coast of the northeastern United States, and around the Great Lakes: herring gulls, great black-backed gulls, ring-billed gulls, and laughing gulls. Since the 1950's, gull populations have increased and their ranges have expanded, probably due to increasing human development and the creation of unlimited food supplies available in landfills and other waste-handling facilities. Gulls are adaptable to human disturbance; gull nesting colonies occur on rooftops, spoil areas, man-made piers and peninsulas, and other structures.

**Identification**

Great black-backed gulls have black backs and wings, and white underparts. In the summer these gulls are found mainly along the coast; they spend the winter in the mid-Atlantic states, including New Jersey and the New York City area. Flocks of great black-backed gulls do occur inland in New Jersey, but they are more common along the

coast. Insects, eggs, birds, fish and small vertebrates such as snakes and frogs make up the bulk of the great black-backed gull's diet. They nest on bare or grassy areas, large mounds of seaweed, sod or moss lined with fine grass, usually along the coast.

Herring gulls are smaller than great black-backed gulls, and have gray backs, and black tipped wings with white spots. Herring gulls have pinkish feet. The bill is yellow with a red spot near the tip. Herring gulls are found along the coast, at beaches, and scavenging at dumps. Herring gulls are omnivorous, and eat anything from garbage to berries. In New Jersey, herring gulls are abundant in the winter along the coast.

Ring-billed gulls coloration is similar to herring gulls. They have gray backs and gray wings with black tips. A black ring encircles the bill. Ring-billed gulls have yellow-green feet. With the exception of bill color, ring-billed gulls look like small versions of herring gulls. They are found around lakes, bays, coasts, dumps and plowed fields. These gulls are omnivorous, and feed on fish,

insects, worms and garbage. Nesting occurs among rocks or on matted vegetation lined with fine grass or feathers, on beaches and islands of the lakes of upstate New York and on rooftops and other man-made structures. In New Jersey, ring-billed gulls are relatively more common inland than are herring gulls.

Laughing gulls are small coastal gulls with a black head, dark gray wings, and red bill and feet. These gulls are often found in salt marshes, coastal bays, piers and beaches; they eat garbage, marine foods and insects. Laughing gulls nest in tall grass, under bushes, and between dunes, and are very numerous nesters along the New Jersey coast and in Jamaica Bay on Long Island. Laughing gulls are summer (April-October) residents in this area, and migrate southward for the winter.

### **Legal Status**

Gulls are Federally protected by the Migratory Bird Treaty Act, administered by the U.S. Fish and Wildlife Service. The State of New Jersey classifies all four species as protected non-game birds. In order to trap, kill, relocate, or otherwise handle gulls or their nests and eggs, a Federal permit is required. A permit from the New Jersey Division of Fish and Wildlife's Endangered and Nongame Species program is also required. Federal and State permit applications are available from USDA APHIS Wildlife Services program (address above). Permit applications are processed by the U.S. Fish and Wildlife Service (413-253-8643) and the State of New Jersey Nongame Wildlife Permits (908-735-5450). Once permits have been applied for, inquiries about their status can be directed to those agencies respectively. *USDA APHIS Wildlife Services offers technical and*

*operational assistance to the public and other government agencies and is not the permitting agency.*

### **Damage**

#### **1. Property**

The fouling of boats and docks at marinas and accumulations of droppings on other property are common problems associated with gulls. Rooftop nesting may result in accumulations of droppings, feathers and nesting material that may be drawn into buildings through air conditioning systems or plug roof drains during heavy rains. Gulls may destroy polyurethane roofing materials , and boat and pool covers.

#### **2. Natural Resources**

Along the Atlantic Coast, herring and great black-backed gulls may negatively affect nesting populations of threatened, endangered, or special concern species of shorebirds. Gulls have been shown to impact populations of terns, piping plovers, and other special concern species by direct predation on adults, chicks and eggs, and by disturbing nest establishment, feeding, and resting behaviors of shorebirds. In many of these situations, the larger and more aggressive gulls have displaced shorebirds, and have limited their survival.

#### **3. Agriculture**

Gull depredation on fruit crops such as blueberries and grapes has been reported on Long Island and New Jersey, and can be a substantial cause of loss for individual farmers. Gulls can also be attracted to cattle feedlots where there is an accessible source of food. In these situations, gull droppings may contaminate cattle food. Gull predation on domestic ducks at commercial duck farms and the transmission of disease to fingerlings

at fish hatcheries are other problems associated with gulls.

#### 4. Human Health and Safety

All gull species jeopardize aircraft safety when they are in or around airport environments and are involved in wildlife-aircraft collisions. Currently, more than one-half of all bird-aircraft strikes in the world involve gulls. The ingestion of birds into aircraft engines has the potential to compromise human safety by causing engine failure and possible crash of the aircraft. In addition to this hazard, birdstrikes can cause substantial financial losses to the aviation community. Gulls are attracted to airports by standing water, large areas of short grass along runways and taxiways, and by food resources, such as insects and handouts from people.

The creation of unsanitary conditions at reservoirs occurs when large flocks of gulls use areas for extended periods of time; accumulations of droppings and feathers can render water unfit for human consumption.

#### Damage Control Methods

As is the case with all wildlife damage problems, the best approach is to consider and apply a number of safe, effective, legal and practical techniques and methods. An integrated gull damage management program includes habitat management, harassment, and/or population management.

#### Habitat Management

1. Grid Wires. Covering water with grids of monofilament fishing line (100 pound test) or stainless steel wire (0.8 mm thickness) will deter gulls from landing on the surface of

water, rooftops, and other areas. Short strips (3"-6") of mylar tape should be attached to the monofilament line every 4-6' to maximize visibility of the line to birds. Wire spacing depends on the problem species: for herring and great black-backed gulls the correct spacing is 40 feet, and for ring-billed gulls, the correct spacing is 20 feet. This technique does not work for laughing gulls. Install spring mechanisms on the wires to reduce breakage; this can be as easy as hanging a weight on the wire and running the wire through an eye bolt at the support structure. Check the grid system at least once per day to check for structural problems and to dislodge objects that may have become entangled in the lines.

2. Water Management. Gulls are attracted to fresh water, especially in coastal areas. Wherever feasible, drain, fill, or cover water bodies where gulls are a problem. The avian taste repellent Methyl Anthranilate, sold commercially as ReJeX-iT®, has been registered by the U.S. EPA for use in controlling gull presence at temporary pools of water, non-fish-bearing bodies of water, and from landfills. Check with your state office of pesticides to determine if this repellent is registered in your state at your intended time of use.

3. Elimination of Food. Reduce the amount or availability of food for gulls by prohibiting the feeding of birds by people, and by covering or removing cattle feed, natural , and other foods. Gull use of foods from waste-handling facilities can be reduced through installation of grids, closing of facility doors, and modifications of structures. Where doors are not practical due to operational needs of the facility, installation of PVC strips in doorways will

reduce entry of gulls to the inside.  
Trash-moving vehicles should be covered.

Control of insects, especially Japanese, Oriental, and June beetles, and stink bugs, through application of insecticides and/or Milky Spore Disease, will reduce the number of gulls feeding on the site. Use of insecticides must be conducted according to State certification requirements and pursuant to product label instructions. Consult your Rutgers Cooperative Extension county agent for specifics on insect control recommendations and appropriate selection of insecticides.

4. Nesting/Roosting Site Management. Gulls prefer to rest in areas where they can see long distances. Short grass also allows their access to insect foods. Maintaining grass height between 10"-14" will reduce gull presence. Covering nesting and resting areas with grid lines/wires will also deter gulls, except for laughing gulls. Habitat modification to change vegetation from grass to alternative covers is also recommended.

#### Harassment.

In order to be effective, harassment with distress calls, propane cannons, and pyrotechnics must be diligent, persistent, and initiated as soon as the problem is recognized. Birds that have been allowed to habituate to an area will be more difficult to scare away.

1. Distress Calls. Playing recorded gull distress calls in conjunction with the use of pyrotechnics can be effective in moving gulls from most locations. When using recorded gull distress calls, it is important that you match the recorded distress call to the

species of gull you wish to move. Distress calls of ring-billed, herring, and great black-backed gulls are available from commercial suppliers. Do not play the distress tape continually. The calls should be broadcast from a stationary vehicle or facility, and should be played for no longer than 20 second intervals. Gulls may at first be attracted to the sounds, but will disperse after subsequent playing of the calls, especially if reinforced with the employment of pyrotechnics.

2. Propane Cannons. Propane cannons may be used to scare gulls out of large areas like agriculture fields, golf courses, and airports. Gulls will become accustomed to this technique quickly if it is not reinforced with other techniques. Propane cannons may not be effective at airports where the birds are already habituated to the loud roaring noises of aircraft. Cannons are most effective when they are moved around to different parts of the damage area every few days. Propane cannons are available commercially for \$250 - \$400. Propane and tanks are purchased separately from the cannons. Since many townships and municipalities in New Jersey have local ordinances that prohibit the creation of loud noises, you must check with your local police and municipal offices to get appropriate clearance prior to operation of propane cannons. In New Jersey, a permit from the New Jersey Division of Fish and Wildlife (908-735-8793) is required prior to use of propane cannons in agricultural environments.

3. Pyrotechnics. Pyrotechnics for wildlife damage control are noise-making devices used to scare birds away from an area. There are two general types of pyrotechnics: cracker shells which are fired from a 12

gauge shotgun (100 yard range), and pyrotechnics which are shot from a handheld pistol launcher (25-30 yard range). Both types discharge a projectile that detonates downrange to maximize the scaring effect on birds. Since they have a shorter range (25-50 yards), 15mm pyrotechnics fired from a handheld launcher are recommended for urban/suburban areas (subject to local laws). Shell crackers (12ga.), with a range of more than 100 yards are more appropriate of for use in rural/agricultural situations. Prior to using pyrotechnics, check with your Police Department, and comply with all regulations and instructions. When using shell crackers with a 12ga. shotgun, it is recommended that a break- action firearm be used to allow examination of the bore after each discharge to check for material that may have lodged in the barrel. Always wear personal safety gear (eye and ear protection and gloves) when deploying pyrotechnics. There is some fire hazard when using pyrotechnics, so it is important to carefully monitor their use. Consult municipal noise ordinances prior to use. When using pyrotechnics in combination with distress calls, deploy the pyrotechnic after playing of the calls to direct the flock of birds away from the damage site.

4. Avitrol®. The repellent 4-aminopyridine (Avitrol®), a chemical frightening agent, has been used to disperse gulls. Gulls that ingest Avitrol®-treated bait emit distress calls and fly erratically prior to death. This frightens the rest of the flock away from the area. It is important to pre-bait an area for four or five days prior to treatment to obtain good bait acceptance. Follow all directions on the label. Avitrol® is a restricted use pesticide which is safe for use only by Certified Applicators or persons under their direct

supervision and only for those uses covered by the Certified Applicator's Certification. Federal and State depredation permits are required before use.

Population Management. Federal and state permits are required before gulls and/or their nests/eggs can be taken. Permit applications can be obtained from the U.S. Fish and Wildlife Service (USFWS) (413-253-8643) or from the USDA APHIS Wildlife Services program. The completed Federal application must be submitted to the USFWS, accompanied by a \$25.00 processing fee. The New Jersey Division of Fish and Wildlife similarly requires that a permit application be completed and submitted to the Nongame Wildlife Permits office (908-735-5450). There is a \$22 application fee. Once the permits are obtained, comply fully with its conditions, including the annual report of the number of gulls taken. Carry the permits with you during conduct of control activities. **The permitting process may require several months to complete. If you have questions related to the status of your permit application, contact the USFWS directly at the numbers noted above.**

1. Shooting. In some situations, it is recommended to shoot a few gulls in order to reinforce other, nonlethal techniques such as harassment and habitat management. Both state and federal depredation permits are required before gulls may be shot. In most instances, the most effective program is an integrated one in which only a few gulls are shot in order to reinforce scaring effects of other techniques. The preferred shot size for gulls is high base #4 steel shot used in a 12 gauge shotgun.

2. Elimination of Gull Reproduction. In some instances, the control of gull nesting is necessary to reduce gull damage to other shorebirds, or to protect property or health and safety. Depending on the species, gulls begin building nests in late April, and the bulk of egg-laying occurs in May. Removal of nests and eggs or treatment of eggs by puncturing, chilling, addling, or oiling will reduce or eliminate gull reproduction and may cause the gulls to abandon the colony site. Gulls are tenacious nesters, with fidelity to historically-used nesting colony sites. Rigorous application of this technique is required over a number of years if the goal of the program is to cause the abandonment of the colony. Installation of a grid system over the nest site will deter gulls from landing on the area, and will reduce the need to continually remove or treat eggs. This is most commonly recommended for rooftop nesting colonies where the potential for the grid system to negatively affect other bird species is minimal. A Federal and State permit is required in order to conduct activities involving the removal of nests and eggs and treatment of eggs.

3. 1339 Gull Toxicant (98% Concentrate). DRC-1339 is a Restricted Use Pesticide that is registered for use only by Certified Pesticide Applicators employed by the U.S. Department of Agriculture. It may be used to control herring gulls, great black-backed gulls, and ring-billed gulls in colonies in order to protect other nesting shorebirds (black skimmers, terns, piping plovers, etc.) from gulls. Bait is applied to bread cubes, which are hand-placed in the gulls' nests. Birds that ingest the bait die within 2-4 days; the chemical is completely metabolized by the gull and there is no secondary poisoning hazard. Dead gulls and unused bait are

collected after treatment. Federal and State depredation permits are required before use. This product is not available for use by the public; contact USDA APHIS Wildlife Services if you are interested in its application.

**Special Note:**

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***Recommendations in this leaflet should not be implemented if they would be in conflict with the Endangered Species Act of 1973.***

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