

REQUEST FOR INFORMATION:

UNUSUAL GROWTHS ON A TREE SPARROW

VALERIE M. FREER

During a routine fat check on a Tree Sparrow on Feb. 16, 1973, a number of unusual growths were noticed. The growths were cream-colored irregularly shaped thick patches 2 to 8 mm. in diameter, and with the general appearance of a raft of mosquito eggs. They were 1 to 1.5 mm. thick with columnar separations visible on the edges and with irregular tiny whitish spots on the surface.

About a dozen such patches were on the skin of the breast and upper sides; none were on the other parts of the body.

The bird was recaptured on February 18 and 24, 1973. No change was noticed in the growths. An attempt was made to remove a portion, but it was found that they were very firmly attached to the skin. The growths were hard - not soft as eggs might be expected to be.

The Tree Sparrow, originally banded Jan. 5, 1969, was apparently healthy. It struggled in my hand and flew strongly when released.

I would very much appreciate information regarding the nature of these growths.

--Sullivan County Community College, South Fallsburg, N.Y. 12779



SALVAGED ALIVE: MORE ON CARE OF INJURED BIRDS

HANNAH BONSEY SUTHERS

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A roadside victim still alive has an urgency to it that cannot wait for a compilation of information, based on years of experience, to come out in one article. The information is needed often before it is learned. We bird banders, now permitted to pick up and send on to some institution the roadside kills, are going to find ourselves increasingly in the situation of finding something alive. Along with every other Grackle or Catbird, or insect eaters killed regularly on that stretch of road wooded on both sides, or along with the Baltimore orange peels and Scarlet filter kings, Rufous-sided brewer's and Yellow-bellied film boxes, are going to come other surprises. Alive.

A Kestrel standing only 6" off the pavement? Something is wrong. We pull over as soon as possible and put on the 4-way blinkers. We rummage through our kit under the seat: pampers and plastic bread bags for small birds (dead). Assorted paper bags to enclose the live ones for quiet keeping. A burlap bag for dangerous beaks and claws. I grab the burlap bag for the Kestrel. The eye on the hit side is swollen shut. I approach on that side, and it is oblivious until it feels the bag wrap around it and lift it up.

That pheasant's wings aren't just blowing in the wake of straddling cars; that bird in the middle of the lane is flapping in terror. Bare hands will suffice. It is slipped into a grocery bag, head first.

Down at the bay a Laughing Gull lies on the dried washed up sea grass. It does not seem to notice the rising tide, nor our presence. The lightest person steps along the spongy grass and decisively places hands around the gull's body. The only resistance is a stretching of the neck as though the body should follow. A patch of missing feathers on the side of the head tells a possible story.

A child waits at the door, with an orphan Barn swallow, feathered, but too young to fly. Somehow the nest was knocked

down from the eaves, and the child had rescued the baby from a dog.

Then there come the inevitable broken bones. The young Robin, Jay, Mockingbird, Blackbird, typically leave the nest before they can do more than flutter along the ground, and they get hurt by a car, dog, lawnmower, or whatever. An adult bird gets caught by a squirrel trap.

Now what to do with this assortment? Any of us who has an injured bird, or, because of interest in birds is likely to find or "inherit" injured birds, may apply to the appropriate Regional Office of the Bureau of Sport Fisheries and Wildlife for a Salvage Permit with a clause giving permission to care for sick, injured, or orphaned birds. The Bureau encourages and appreciates humanitarian attitudes and efforts in rehabilitating injured birds. Some sources for the care of small birds are Koenig, 1968. Suggestions for small birds of prey are in Suthers, 1970. Case histories on the above assortment follow. Fortunately they joined the household at separate times.

The Kestrel was picked up on 15 October, 1971. The left eye was swollen shut, bloody, and there was bleeding through the left nostril. The bird gaped when I picked her up. At home I weighed an empty shoe box, then unwrapped the bird and weighed her in the box. She weighed in at 148.0 grams. She was still alive the next day and stood up instead of lying flat. I started force-feeding with forceps and ground beef, and gave her a vitamin drop daily. She swallowed with difficulty, typical of a bird with a concussion. By 21 October the injured eye was open. There was no sight in it, no reaction either to a blinking flashlight. The Kestrel offered to take meat from my fingers with her beak, or hold a piece in a talon and tear off bits. She was put on newspaper under a plastic moulded clothesbasket. A few days later I slipped a perch through the mesh.

Here was an opportunity to find out how much the Kestrel would eat in a day, with free choice. I looked up the article, "Sparrow hawk feeding experiment" by Davis, 1966. A female was caught by him, weighed, and allowed to feed for two days on fresh dressed rabbit. Her initial weight was 1869 grs. avoirdupois, and the average daily food requirement averaged out to 494 grs. avoirdupois. Converted to grams, this would be 121.4 grams initial weight, and 40 g food a day. The weight of my hawk, 148.0 g, was closer to that of another female nursed by me, 140.6 g.

Starting on 23 October, until 15 December, 54 days, I kept track of the Kestrel's daily intake. This was done by weighing her food, a chicken thigh or drumstick or liver, when given in the morning, and again at night. The time span in days was wide enough to average out ups and downs in her intake. A tally of her daily intake showed a wide fluctuation between 14 and 64 grams. Graphed, the daily intake showed peaks of heavier eating between 39 - 58 grams a day alternating with lighter periods of 14 - 34 grams a day, in 4 to 6 day cycles. The average peak intake was 47.2 g, the average lull was 23.1 g. The ideal amount during the initial force-feeding I should think would be inbetween.

On 6 November, three weeks after her rescue, her left eye was obviously shrinking away, as though the retina had been ruptured and could not heal. Could a one-eyed hawk hunt? The ornithology references on my shelf were all too general to answer the very down to earth question. I could only see the Kestrel, with her monocular vision, make her first and last down-to-earth plunge for prey. Now our problems began. She was too spooky to release in a room; she kept falling between a cabinet and wall. We built her a 3 x 3' hardware cloth cage with high and low perches. Instead of flying to the upper perch she flapped and climbed up the wire. She was battering her wings and tail. She would have to wait for a molt to replace her damaged feathers, or, under anesthesia, have them plucked by a Vet, for faster new growth. I had yet to find out how to tether her to a perch with leash and swivel. The many library books on falconry were histories, not how-to books. The wings would have to be immobilized by a band of tape around closed wings and body, to keep her from battering them. She died on 1 April 1972, after a few hours' illness - respiratory disease?

The female Pheasant was hit by a car on 22 Nov. 1970. We found her lying on her belly on the road, head down, bleeding from the right eye and nostril. She was put on paper under the laundry basket, where she squatted with sunken head. The force-feeding began the next day: cracked corn, pieces of grape, vitamins, water by rubber-tube dropper. Her throat had to be stroked to induce swallowing. On the second day she swallowed voluntarily.

This is how I held the pheasant for force-feeding: with left forefinger between her legs, my thumb and fingers wrapped around her thighs. The bird then squatted on my lap with tail out past my elbow, and my forearm securing her against my body. My right

hand opened her bill, and another person poked the food down. When the bird swallowed by herself, I could feed her alone.

Three days later, holding her thus, I took cotton swabs and a weak salt solution ($\frac{1}{2}$ tsp/pint) and soaked away the blood from the right nostril and eye. The eye looked sound, though with the characteristically dilated pupil. She now started feeding herself from apple halves put under her basket. I continued to force-feed her corn morning, afternoon, and night, during the entire two weeks she was with us, to prevent weight loss. I gauged the amount by feeling the accumulation in her crop, about $\frac{1}{4}$ Cup, and feeling again if any were left at the next feeding. She and her basket were put on the window feeder, days, during the last week, to acclimate her to the snappy weather. She was allowed to walk about a room at night (so she wouldn't fly against a window) for exercise. She became somewhat tame, but not to touch. On 5 December, two weeks after her pick-up, and with the right eye sensitive to light, she was released on the New Land Research Reserve near Hopewell. She flew away strongly.

The Laughing gull presented a new problem: according to Bent's Life Histories, this bird surface fishes. How to feed it, then? I had to force-feed it during the entire two-week stay, 17 Sept. - 2 Oct. 1972. It would not take food either from a dish or from the bottom of the water container. The bird evidently did not recognize canned fish (cat food) as food. It did drink quantities of water by itself, from the start. To feed the bird I faced it, grasped the beak with thumb and two fingers to pry it open, held on to the maxilla, and put the pieces of tuna in back of the deep-red mouth. I wasn't sure that stroking wouldn't stimulate regurgitation, so to aid swallowing I grasped the beak and gently moved the neck up and down in the motion seen as gulls swallow fish.

It was two days before the gull could raise itself on its upper legs. Then it flapped wings and "walked" on feet and wrists. By the 4th day it was actually walking, though it tired quickly and the left wing drooped $1\frac{1}{2}$ " below the right wing. I weighed the gull, 315 grams, and because of its increased activity, stepped up the feeding from 8, to 10 Tablespoons a day. With the mobile bird loose in the bathroom, feeding took on a new angle. The bird padded away at a comfortable distance, to a corner. I crouched before it. It tried to get by at first, but came to stand there

with beak open. It tried to back away, wings flapping, when I grasped the maxilla, but at the same time it opened its throat laterally so that the tuna slipped down easily. It didn't want 10 Tbs. a day. It regurgitated once before I understood. Then when anyone came into the room between feedings, it vigorously shook its head while walking away, using the same snapping head movement that our mynah uses when refusing table food it doesn't want to try.

Able to stand up and walk, the gull started preening. At this time I offered a bath. While it was helpless, the bird soiled itself in the portable nest contrived with a pad of newspaper on a cookie sheet, and a bath towel oval. Though I changed paper towels under its vent frequently, the droppings got on the under-tail coverts and dried on. Cleaning with a paper towel helped some. Soaking in 4" of tepid water in the tub helped alot. Upon removal, the bird preened. Two days later the bird both bathed and preened.

On the 8th day the gull skimmed over the floor, wings flapping. On the 9th day it could fly up to the laundry basket full of clothes. Up and down it went, repeatedly. By the 10th day it could fly across the room, several inches off the floor. During the remaining 4 days there was lots of flying across the room. The gull was ready to go. Its tail, in pin feathers when we picked it up, was now nearly grown out. Wing feathers, 3rd and 4th from the outside, were growing in, black with white tips. It weighed 301 grams, and accepted 6 to 8 Tbs. of tuna a day, force-fed.

Release day was 2 Oct. 1972, at our banding lane at Island Beach State Park. I placed the gull on the ground. It walked about. I picked it up and elevated it to fly. It flew to the ground and walked just out of reach ahead of us toward the bay. I tried to catch it again. It squacked loudly and took off for the bay, pumping its wings hard to gain elevation.

Supposing an oil-covered gull was salvaged alive. I have wondered what to do. Only some 6% of the birds lived that were treated after the 1969 San Francisco Bay Oil spill. Not any more encouraging than the Kingfisher I tried to save more than 20 years ago when it emerged through a kerosine slick put on a public stream to control mosquitoes. That bird died within three days. Since then, J.L. Naviaux (1972) describes the use of a solvent, Chevron Isoparaffin 150, which left the feathers water

repellant. Naviaux also recommends the less flammable Shell Sol 70 to the inexperienced person caring for a single bird or only a few birds. The publication includes instructions for general after-care. A National Geographic story on penguins mentions the use of powdered clay patted on oiled parts, left on two hours to soak up oil, then washed away, and repeated over many days.

The Barn swallow orphan was brought to us in mid-July, 1972. It was raised on hard boiled egg yolk, vitamins, and later raw lean ground beef by its own preference, about 2 level teaspoons a day. I took notes on feeding orphan and injured small wild birds from Vol. IV of Current Veterinary Therapy (Gandal, 1971) loaned me by the Vet. If an orphan is too young to identify, it can be fed dead insects put on the back of the tongue. Or canary nestling food from a pet shop can be mixed with strained baby meat and fruit, a few drops of vitamins, into a thick paste shaped into pellets for feeding. A home prepared insectile food for older orphans can be made by mixing 1 part each of raw lean meat, puppy meal, and bread crumbs. Or baby cereal can be mixed with beef stock, finely chopped hard-boiled egg, and moistened with the strained baby beef or fruit. Several drops of multiple vitamins go in either mix.

Adult seed eaters can be fed wild bird seed, insectile food (above), and occasional live insects. Adult insect eaters can be fed mockingbird food from the pet store, or the insectile mix with grated carrot, apple, and chopped hard-boiled egg added. Supplements can be fresh fruit, meal worms, and captured insects. The fruit and nectar eaters can be fed this or other variations of liquid: 5 tsp honey, 5 ml beef extract, (about 20 drops make 1 ml), 4 drops multiple vitamins, and enough warm water to make a quart.

The Barn swallow thrived, flew about the house, and when called, hovered above the outstretched hand before landing. It started to sing, early August. On 10 August it was released near a farm lake where some 200 Tree swallows and some Barn swallows were feeding and perching on telephone wires. It circled around several times and landed on low branches or the car before finally perching on a tree across the lake. I have often wondered what kind of chance such a bird had for survival. Berger, 1966, presents evidence from returns and recoveries that birds, hand-reared until they reached independence, can fend for themselves in nature.

Feeling that there ought to be a better way of handling broken bones than the old quill or tongue-depressor splints, I went to the Veterinarian's office to take the following notes from Current Veterinary Therapy. I found it helpful to practice the procedures on roadside kills.

The flap splint is the basic splint used for fractures of the leg, with adaptations according to the part of the leg broken. The basic form is used for a break in the middle third of the tarsus, or for a break in the fibula (large bone of the drumstick) or for a break in the femur (thigh). Reduce the fracture manually. Pluck the feathers around the break, and swab with alcohol. Hold the bird ventral surface up (belly up, bird-banding style) with the fractured leg facing the bander. Tension is applied by holding the leg in a straight upright position by the middle toe. This straightens the break. Adhesive tape, 1/4 - 3/4" wide as needed, about 4" long, is flapped around the leg, 3 - 4 layers, leaving a 1/8 - 1/4" flap on each side of the leg. This flap is pinched together on each side close to the leg with the fingers to fix the fractured ends. Then tightly compress the flaps together with pliers. When the leg is set properly with the bones in apposition, this adhesive splint holds it firmly. See drawing 1.

For the proximal third of the tarsus or distal third of the tibiotarsus, that is, either tarsus or drumstick near the heel, a variation is used. Hold the middle toe and extend the leg to approximate the bones. A band of adhesive 3/4 to 1" wide (for canary-sized bird) is placed around the extended leg (and heel joint). The flaps are clamped only on the front and back proximal (closer to the pelvis) border. The front of the distal border is cut at the margin through all layers to a point at which the tarsus can lie fixed in the splint at an angle of the normal standing position of the leg. This angle is 45° for the canary and varies with other birds. Caution with a fracture near the joint, that the bend is occurring at the joint and not at the break. The entire splint is then tightly pinched over the tarsus, and the flaps compressed together. See drawing 2.

A fracture of the lower third of the tarsus, near the foot, is set without the flap. A narrow piece of adhesive, cut to fit, is laid under the claws and carried up the sides of the tarsus. It is fitted tightly to ensure healing of the bones. Then a

piece of $\frac{1}{2}$ " adhesive tape is rolled around the lower portion of the tarsus, tightly enough to fix the bones and hold the underlying supportive adhesive in place. Caution, do not create too much pressure and inhibit circulation. See drawing 3.

A broken femur, thigh, is plucked, set, and held against the body. If the bird, like the canary, has long body feathers, the feathers on the body on each side of the tightly set leg are brought together and tied to form a sling, immobilizing the flexed leg. If the bird has shorter feather, tape must be used to hold the fractured leg flexed against the body: $\frac{1}{2}$ " adhesive is wrapped around the flexed leg and continued around the body behind the wings to fix the leg close to the body.

A broken toe is set next to the adjoining toe, or as in the hind toe, a flap splint in the horizontal plane is used.

The bird is caged, with perches, so it is forced to perch and use the splint as a crutch. Don't gravel the cage bottom. The splint is examined at 1 week for adjustments, and is usually removed at 2 weeks. Gradually pry apart the tape with the jaws of blunt scissors, and cut from the edges closer to the body, toward the foot. The new feather growth should facilitate the process. Ether helps loosen the tape.

Broken wings require a body splint made of adhesive tape. The bird is held dorsal surface (back) up, broken wing facing the bander. One hand of the helper supports the front part of the body, the other hand holds the legs toward the back, the back part of the body, and the base of the tail. Adhesive $\frac{1}{2}$ " wide, 6 - 8" long is used to fix the wings, canary size. The bones of the wing are brought into apposition with the wing flexed against the body. The tip of the fractured wing is placed over the tip of the other wing. The piece of tape is placed under the fractured wing at the front margin, carried over the wing and wound around the body, confining the other wing. The extra length hangs free. See drawing 4a. Another $\frac{1}{2}$ " piece of tape is placed perpendicularly over the front margin of the first piece of tape, carried straight, back along the top line of the body, over the crossed wing tips, and flapped under the back border of the wing tips. The first piece of tape is then continued twice around the body. A small piece of $\frac{1}{2}$ " tape is placed around the wing tips, parallel to the first strip and perpendicular to the second horizontal strip. This

ties the wings together and acts as a counterbalance. See drawing 4b. The bird needs 4 - 12 hours to learn to balance with the splint.

Removal is in two weeks. The 3 strips are cut and the tape is removed by loosening with ether. Hold the base of feathers with a finger, and strips of adhesive are easily and gently pulled off. Some feathers will come off. The slight droop corrects itself with exercise, though often the bird can't fly.

Large birds usually have compound fractures which then have to be pinned by a veterinarian. For simple fractures the same techniques may be used, but with materials strong enough to keep the bones in proper alignment, and provide sufficient immobilization. Elastic adhesive tape (Elastoplast) and padded aluminum splints are suggested, by C. P. Gandal.

Dr. A. W. Stults, who has a veterinary practice in Hopewell, prefers cellophane tape to adhesive tape for splints on small birds. Wound around the leg at the sight of the break, it makes a stiff splint, and it is much easier to remove, with less loss of feathers. To the above notes he adds the following advice. Not only does a break have to be set in apposition, but the leg next to the break has to be kept from rotating at the joint during the healing. So a set femur is brought up and forward against the body for support and taped there by a band around the thigh and body under the wings. Then the drumstick and tarsus are brought up to the thigh and immobilized by a band of tape around them and the body, under the wings, a little forward from the first band. This prevents rotation at the knee. The heel is immobilized for a break just below or above the heel joint. This is done by a variation of the splint shown in drawings 2a and b. Cellophane tape is wound around the break to hold it in apposition, but not covering the joint. Tape is wound around the other leg on the other end of the joint. This gives two circles of tape, one on each end of the heel, but no tape in front of the heel so that circulation is not shut off when the leg is bent up at the heel. The tarsus is brought up against the fibula, and a third tape, around the other two., holds the leg in this immobilized position.

Now we may feel better prepared for the new season. Previously, in anticipation of the growing variety of clients convalescing in my bathroom, I had obtained an extension of my

Federal and State Scientific Collectors Permit for salvaging, to include care of the injured and orphaned. The clientele so far certainly has provided opportunity for observing bird behavior at close hand! And some day, who knows, that sign on the bathroom door is going to say "Caution, vulture inside". An unsuspecting guest, thinking that we are punning about the culture kind, will be convinced when blockaded by the startled opening of a 6-foot wingspread, and met eye to eye.

Acknowledgements

Thanks to Dr. A. W. Stults for advice on leg splints, and for checking the leg splint drawings. The wing splint is drawn according to that shown in I.E. Altman's Fig. 1 & 2.

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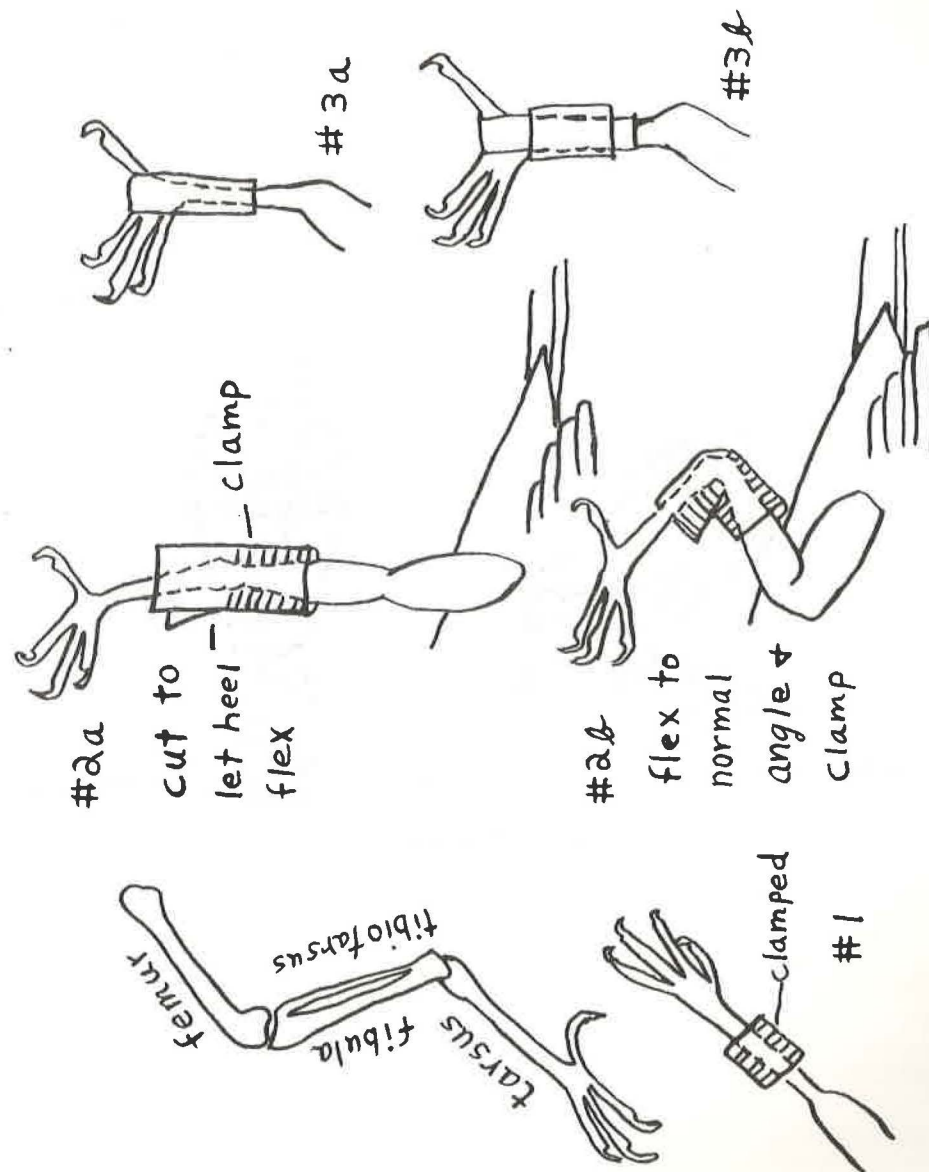
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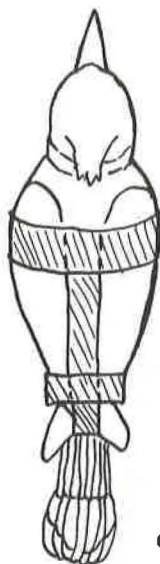
-- 53 East Broad Street, Hopewell, N.J. 08525





#4a step one

wing splint



#4b

completed

ATLANTIC FLYWAY REVIEW -

REGION IV

Edited by Bruce Adams

For the 1972 fall season, only three stations in Region IV will be submitting reports; these are, Sandy Hook, Island Beach, and Ship Bottom. The Mariedor station in New Gretna, operated by John and Mary Schmid, was inactive last fall, primarily due to Mary Schmid having been ill and hospitalized for much of the season. We understand she is now recovered and hope their station will be in full operation during the 1973 season.

Fred Schaeffer and the AFR editors are at present considering the question of just what criteria ought to be used in determining which stations should be included in AFR. As most of us are aware, AFR is an outgrowth of what was originally known as Operation Recovery and which, in its beginnings in the 1950's, included only coastal stations. Such questions as the differences in coastal vs. inland, netting vs. non-netting, and year-round vs. seasonal stations are significant in terms of the overall value of AFR data. As editorial policies on this are determined they will be appearing in future issues of EBBA News.

In the specific case of New Jersey, we have an area in which the coast alone provides a largely untapped potential of spots where AFR stations could, but do not now, exist. And New Jersey is also a state with a fairly large number of licensed banders. I have been very interested in and involved with, New Jersey coastal ornithology since the early 1950's, not only in connection with banding but also with non-banding activities such as observations. Rather than devote the space in this report to a comparison of data from the three stations reporting, (the summaries from the station leaders follow at the end) I would like to go over some of what I believe are potentially good areas on the New Jersey coast where fall netting operations could be attempted. Some of these are areas in which banding has been done in the past. Hopefully some New Jersey banders can be encouraged to try out these spots for a couple of weekends and perhaps we can have more stations reporting from New Jersey.