

We Gain Some and Lose Some! Has the Introduced Whistling Frog Eleutherodactylus gossei Died Out?

Two species of whistling frogs were accidentally introduced from the Caribbean on ornamental plants or orchids in the late 19th century. At first both seemed to be increasing and spreading equally, but by the 1960s it was becoming apparent that *E. johnstonei*, which dominates the night chorus with its bell-like "gleep gleep" calls, was out-competing the other. At that time, *E. gossei*, with its monotone "tew-tew-tew" trill, was limited to the central parishes (Devonshire to Warwick), with localised sub-colonies at Port Royal Golf Course and Somerset Long Bay.

When Dr. Donald Linzey began his research on toads and whistling frogs in the 1990s, he consistently failed to find *E. gossei*, despite explicit advice on where to look for it. I last found it myself in Paget Marsh in 1994, when searching for specimens to photograph, with Richard Ground, for an article in Bermuda Magazine (Fall 1994). Last year, Dr. Linzey and I decided to search for it together at an optimum time of year, but still without any success. Others, like Robin Marirea of the Aquarium Zoo, have also tried without success.

Dr. Linzey has suggested that the disappearance of *E. gossei* may be related in some way to the worldwide decline of amphibians. The toad has declined here as well but in this case I think the mortality from increased motor traffic is enough to account for it. Ironically, one can never 'prove' extinction or extirpation with absolute certainty. (Witness the rediscovery of the cahow after 350 years!) So, keep on trying everyone. I only regret that I didn't make a tape-recording of *E. gossei* calls so searchers would know exactly what to listen for.

David B. Wingate

Red-eared Terrapins - A New Addition to the Invasive Species Crisis on Bermuda

Invasive species introduced deliberately or accidentally by man from the continents pose the greatest threat to the native and endemic flora and fauna of remote oceanic islands. In the case of Bermuda's flora, introduced species which have become established in the wild now vastly outnumber natives, and thanks to a few particularly aggressive "monopolistic" invasives like Brazil pepper, fiddlewood, allspice, Surinam cherry, Chinese fan palm and *Asparagus* spp., introductions now make up about 95% of the flora biomass. Moreover, there are still no restrictions on the importation of plants for horticultural use with the result that new species are becoming established as invasives all the time. Some recent examples are Indian laurel, Australian umbrella tree, and Australia's Murray red gum. Another Australian tree, the casuarina, which was extensively used for reforestation in the 1950s and '60s, did not seem to be invasive at first, because it doesn't self-seed in Bermuda soil, but it does self-seed in sand and rocky crevices and is now aggressively invasive along our coastline.

In the case of fauna, the situation is just as bad, even though we have learned to appreciate the dangers of animal importations from bitter experience and now impose severe restrictions on the kinds of fauna that can be legally imported. Early examples of animal imports that were catastrophic to our native heritage in one way or another were pigs (about 1560), rats (1614), cats (1615), house sparrows (1870), American crow (1842), cane toads (1885), anole lizards (1905) and kiskadee (1957). As with plants, imported invasive fauna now makes up more than 90% of the fauna biomass.

Although rigid quarantine is now imposed against the importation of insect pests and certain categories of fauna, such as snakes and mammal predators, the pet industry, in particular, continues to lobby for the right to import aquarium fish, certain kinds of cage birds, amphibians and reptiles. The usual argument in these cases is "what possible harm can they do, even if they escape?" or "they are for the pet trade only and not intended for release". The problem is that despite the best intentions, accidents, or deliberate releases, by people who do not understand the implications, are commonplace. For example, mass escapes of cage birds from damaged cages in Hurricane Emily (1987), resulted in the new establishment, or temporary establishment, of several cage bird species including African red bishops, weaver finches, common and orange-cheeked waxbills. Escaped cockatoos and parrots are a chronic problem, causing significant damage to fruit orchards.

Red-eared terrapins have been imported for the pet trade for decades and so many were released or escaped in the 1960s and '70s that they are now thoroughly naturalized in our ponds and marshes. Present surveys by the Conservation Division and Zoological Society volunteers have confirmed breeding populations on virtually every pond in Bermuda, with counts of 40 or more individuals on some ponds! While one might argue that "this is just another benign addition to our fauna", the problem is not that simple. On the continent, terrapins have many predators to keep them in check. As these are lacking on Bermuda, the terrapin population can become far too abundant, upsetting the ecology of the ponds and possibly leading to the extinction of native species. There is already evidence that they are causing a reduction of moorhens through competition or predation.

Although the importation of freshwater aquarium fish has remained largely unrestricted because our freshwater pond system is so impoverished, the deliberate release of imported fish into our ponds would still have dire consequences. A few years ago, somebody deliberately released a species of piranha into the City Hall lily pond! We do have at least one endemic species of brackish pond killifish, *Fundulus bermudae*, and this might easily be threatened with extinction.

We have only to remember the catastrophic loss of the endemic Bermuda cedar forest as a result of an innocent importation of ornamental juniper from California (which harboured a scale insect pest), to appreciate that the <u>potential</u> for catastrophe exists with every new species introduction, especially on remote oceanic islands like Bermuda.

Unfortunately, in most instances, it is never possible to predict a catastrophe beforehand. There are, however, a number of notorious case histories of imported species elsewhere from which we can be forewarned. These examples form the basis of our quarantine regulations and stop lists and people should learn to respect these regulations without exception.

David B. Wingate

World Birdwatch 1999

by Andrew Dobson

Members of the Bermuda Audubon Society participated in the 5th World Birdwatch, organised by BirdLife International. For the month of October, individuals and birding organisations worldwide attempted to record as many of the world's 9000+ bird species. The aim of this year's birdwatch was to make people more aware of their neighbourhood birds. An additional benefit is that the Japanese telecommunications company NTT-ME is sponsoring \$10 for every species seen worldwide. The money will be used to finance bird conservation projects.

The Society's weekend camp on Paget Island got the count off to a good start, and nearly 60 species of bird were recorded in St. Georges Parish. Although I am still waiting for on or two records, a total of about 140 species in slightly down on the 158 species that were recorded in Bermuda in October of last year. Bermudians may think of our resident birds as our neighbourhood birds, species like the Kiskadee, House Sparrow and Starling, but at this time of the year Bermuda plays host to a whole range of migrant birds moving south for the winter months. Our 'neighbourhood' provides sanctuary for as many as thirty-eight species of North American wood warblers alone. The more obvious birds are noticed by members of the

general public - species such as herons, egrets, and large birds of prey. The great variety of migrants arriving in Bermuda makes the conservation of remaining natural habitats of paramount importance. These birds have been stopping off in Bermuda for thousands of years, but the woodland, wetlands habitat and coastline available to them has almost disappeared. Everyone in Bermuda can help in a simply way by planting more trees in their garden, or leaving a small section to go 'wild'. There is a big campaign running in the US to encourage cat owners to keep their cats indoors during the day. A similar practice in Bermuda would prevent thousands of birds being killed by cats every year. In the US, the number of birds killed by cats is estimated to run into millions.

Anyone interested in the World Bird Count can visit the following website: www.wnn.or.jp/wbc/

Fall Bird Report (Sept. to Nov.)

by Andrew Dobson

This year has not produced a classic fall of migrants. Some birders describe this fall as the worst ever, citing the lack of warbler numbers, very few empidonax flycatchers or thrushes, and few migrant sparrows. Part of the reason may lie in unfavourable weather systems to bring us these birds, but one worries about the loss of habitat in the wintering areas of warbler species. Nevertheless, there were some notable observations.

Grebes to Ducks:

A probable **Eared Grebe** was seen at Spittal Pond on 7th Nov., a species that has only been recorded in Bermuda once before. **Cahows** were back at their nesting grounds by mid-October just after the last sighting of a **Longtail** on 8th Oct. **Double-crested Cormorants** appear to have arrived in good numbers and have been seen throughout the islands. The long-staying **White Ibis** remains and a **Glossy Ibis** was seen flying over Camden Marsh on 7th Oct. Apart from the usual early arriving **Blue-winged Teal**, most ducks didn't arrive until early November, including **Wood Duck, American Black Duck, Bufflehead and Common Goldeneye.** A probable **Eurasian Wigeon** was on Nonsuch Island on 10th Nov.

Birds of Prev to Gulls:

Three **Northern Harriers** on 16th Oct. created a record day count. At Morgan's Point, Marc and Linda Allaire watched one being mobbed by a **Merlin** and an **American Kestrel**, while a **Peregrine Falcon** soared overhead. Two **Sharp-tailed Hawks** were seen together in Smiths Parish on 20th Oct. Highlights amongst the shorebirds included 19 **Whimbrel** at the Civil Air Terminal on 16th Oct., a new maxima? (most of these are still present). A **Red Knot** was located on Riddell's Bay G.C. on 20th Oct., prior to the arrival of Hurricane 'Gert'. The same location provided a range of shorebirds while the fairways remained flooded. Two Eurasian species attracted much attention - a **Curlew Sandpiper** (Bermuda's 6th record) was discovered by Andrew Dobson on Mid-Ocean GC on 17th Sept. When it was relocated on Riddell's Bay GC, it was obvious that it was a different bird (Bermuda's 7th). This was proved to be true when the two were seen together - the first time two have been present together in Bermuda. The last sighting was at Daniel's Head Farm on 1st Oct. Another trans-Atlantic vagrant, a **Ruff**, arrived in early September and was present until at least the 26th Sept. It was the star attraction for the society's September fieldtrip. Paul Watson flushed a rare American Woodcock from fields in Southampton on 28th Oct. A probable **Franklin's Gull** was at Dockyard on 11th Nov., while a **Lesser Black-backed Gull** on 4th Sept. was the earliest fall record ever. At least two **Royal Terns** arrived. One at Astwood Park on 19th Sept. was no doubt trying to outpace 'Gert', while another unfortunately died in captivity at BAMZ.

Owls to Warblers:

A **Short-eared Owl** sat close to Steven DeSilva and David Wingate as they scanned for **Cahows** from the end of Cooper's Point on 9th Nov. **Chimney Swifts** are a regular spring migrant, with few being recorded in the fall. Therefore 14 observed on 23rd October was easily a maxima for the fall, including one flock of 12 over Jenningsland and off North Shore. A **Great-crested Flycatcher** was an exceptional visitor to Jenningsland on 19th Oct, but perhaps no surprise to the Madeiros' garden! A **Western Kingbird** stayed near the Martello tower at Ferry Point for at least a week from 31st Oct. Migrant vireos were hard to find, apart from a scattering of **Red-eyed Vireos**. Two **Warbling Vireos** at Port Royal GC on 16th Oct. equalled the previous highest day count. The movement of swallows fizzled out after September and the number of

thrushes, let alone thrush species, could be counted on one hand. Good numbers of **Cedar Waxwings** were seen throughout October. Two **American Pipits** were noted on Horn Rock on 6th Nov. Although there has been a late influx of **Palm** and **Yellow-rumped Warblers** in November, the number of all warbler species is generally down. Of 38 warbler species on the Bermuda list, 35 species have been seen this fall. Sightings of single birds have included **Yellow-breasted Chat**, seen by most members of the Audubon bird camp on Oct.10th at Ferry Point. A **Swainson's Warbler** was a new species for a number of local birders at Spittal Pond on 6/7th Nov.

Sparrows to Grosbeaks:

A Clay-coloured Sparrow at Hog Bay Park on 2nd Oct. was fine reward for those who had been making Longtail igloos during the afternoon. A Lark Sparrow on 25th Sept at Southside was a very lucky find for Paul Watson, only the 4th record of this species in Bermuda, but all of them in the 1990's. One species, which arrived in very good numbers this season, was Indigo Bunting. Over 200 were present in the Talbot Estate fields on 8th Oct., almost certainly a new day maxima. Two Common Grackles provided a tantalising view for Eric Amos as they flew over St. George's Harbour in Oct. November gales with cold fronts moving off the eastern seaboard often promise good birds, and this year has not disappointed. Penny Soares noted the first Snow Bunting on 8th Nov. near Shelly Bay. Further reports came in from various parts of the island with a flock of 37 at the airport on 9th Nov. There was also an influx of Common Redpolls, 35 being counted at Cooper's Island on 11th Nov. Perhaps the bird of the fall was a 'russet' Pine Grosbeak found by Jeremy and Leila Madeiros at Fort Scaur on 14th Nov. Only the fifth record for Bermuda and the first for 22 years, this exquisite bird provided stunning views.

Contributors: Marc and Linda Allaire, Eric Amos, Andrew Dobson, Jeremy and Leila Madeiros, Penny Soares, John Thorpe, Paul Watson, David Wingate.

Cahow Nesting Islets Overwashed . . Again . . by Hurricane Gert

Only four years after experiencing Hurricane Felix's seas that severely damaged 40% of the cahow nest sites - an event that was assumed to occur only about once in a century - it has happened again! Indeed, many believe that the damage to South Shore cliffs and beaches this time was even worse.

When finally able to check the islets two days later, I expected the worst, but was happily surprised. Evidently, the extra strong repair work after the last event, which included the construction of some concrete retaining walls, paid off. The burrows on the two high, soft-rock islets were not damaged at all, even though wave wash and erosion reached right to the tops of the islands! The two low-lying hard-rock islets were completely overwashed again, however, with inevitable damage from flooding and wave washed boulders. It took a week of hard work by the conservation crew and volunteers to repair the damage before the cahows began to return for the new season in mid-October. Particular thanks to Steven DeSilva and Jeremy Madeiros of the Parks Department, who gave up a whole Saturday hefting buckets of soil and cement in rough sea conditions. Their only reward was superb views of two peregrine falcons on the hunt!

David B. Wingate

Introduction to Birdwatching Course

Andrew Dobson and David Wingate will be offering a 4-week course on Thursday evenings from 27th Jan to 17th Feb. Sessions will include bird identification, migration, the museum collection, essential equipment and birding in the field, when and where to watch birds etc. Two fieldtrips will also be arranged. The course will be run in conjunction with the Bermuda Zoological Society and held in the education room at BAMZ. Watch the press for further details. There will be a small charge. Call 238-3239 if interested.

The Bluebird nest box programme expands every year with this year's additions being the Heydon Trust, the Castle Harbour Golf Club and the Royal Palms property. The following table is a list of the major bluebird trails and an estimate of the number of fledged chicks.

Trail:	# of boxes:	Est. Fledglings:
Heydon Trust	16	7
Castle Harbour	25	23
Mid-Ocean Club	60	57
Port Royal	44	-
Riddell's Bay	30	-
Southside	27	20+
Belmont	10	12
Ocean View	9	7
Government House	20	12
Arboretum	6	12

The House sparrow competes ferociously for nesting boxes, (the worst examples this year being at Southside where sparrows slaughtered numerous bluebird chicks). With the escalation of the sparrow population and the lack of natural nesting sites, the bluebird population cannot adapt quickly enough to the changing environment. I believe that a sparrow proof nesting box will be the saviour of the native bluebird. Various attempts have been made but not all have been tried and tested, such as --- various sizes of baffles (1&1/2 by 3-5 inches of PVC pipe stuck on the outside of the hole), cone heads (some made of wood, others of fiberglass), white Plexiglass roofs, no roofs, or a 3 inch hole in the roof covered by mesh. The 3-inch hole in the roof was recommended by the Massachusetts Audubon, but with Bermuda's often torrential downpours this may not be so practical. The most successful idea so far seems to be the boxes permitting the most light to enter, as sparrows prefer darker nesting conditions than the bluebird. The white plexiglass roofs were successful but temperature testing kindly performed by Sarah Manuel at Agriculture and Fisheries noted 2 degrees hotter than a wooden box.

Bermuda bluebirds nesting season usually runs from March to July but due to the increasing pressure of the vicious house sparrow the bluebirds are having more success nearer the end of the season, sometimes as late as the middle of August.

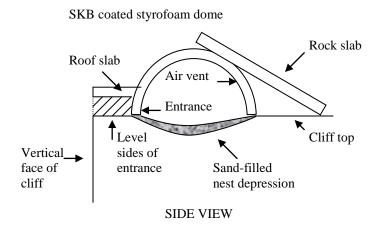
The Audubon Society, Bermuda's Bluebirds and I would like to thank Kevin Winter, Heather DeSilva, David O'Neill, Stephen Morgan, the green keepers at Castle Harbour, James Gibbons, Raymond Latter, James Keyes, Roy Matcham, Bennie Moreira and Roger Pocklington without whom this programme would not be successful. I would also like to thank the Saltus Junior School for their kind donation of 42 bluebird boxes.

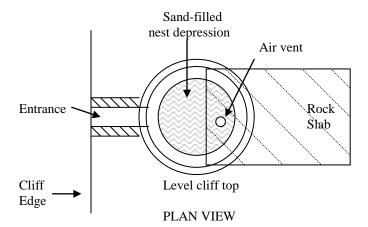
I am still seeking persons willing to make blue bird boxes or monitor a bluebird trail. Please feel free to give me a call at home at 238-1868. With your help we can save the bluebird from possible extinction and enable our grandchildren to witness the stunning plumage of Bermuda's beautiful bluebird in the wild.

The New Batch of Longtail "Igloo" Nests is Now Ready for Sale

In view of the success of the experimental artificial nests for longtails developed under a Foreign & Commonwealth Office grant for conservation in the Dependent Territories, the society executive decided last winter to order an additional 100 styrofoam domes for coating with the SKB roofing fiberbond. (See the SKB Coatings Ltd. ads in local magazines and newspapers.) These arrived in summer and were prepared for sale in two volunteer work sessions during October. Many thanks to the executive committee members and friends who volunteered two Saturday afternoons for this, and to Steven DeSilva who provided storage and work space at his home in Hog Bay Park.

The igloo nests are being offered to private property owners who have coastal cliff sites suitable for longtails at \$75.00 per nest. This price includes consultation advice on siting and installation, but does not cover the cost of installation. It is important to emphasise here that not all coastal sites may be suitable. These nests are designed for level cliff tops or cliff ledges (or level terraces with vertical retaining walls on the coast). In such situations they are easy and inexpensive to install, requiring only a mattock to dig a shallow depression, backfilled with sand for the nest, and about a bucket of cement to secure the dome over this depression and to camouflage it with a few natural slabs of limestone cemented onto the sides and top. The following diagrams illustrate the optimum installation scenario and design:





Society Launches Millennium Fund-raising Drive

When David Saul retired as president last spring, he made a commitment to launch a fund-raising drive for an appropriate millennium project for the society. Members should by now have received our fund-raising package in the mail, which provides details of our present and planned restoration projects for biodiversity conservation. If you believe in the value of these projects, we would welcome your support.

Events

Sunday 28th November – Members day at the Paget Marsh Boardwalk 1.30 pm to 4.00 pm

Wednesday, 1st December - "An Andean Adventure - Wanderings in Chile, Peru, Bolivia, Northern Argentina and the Galapagos Islands", slide talk by Stuart Smith, BUEI Auditorium, 7.30 pm. Members \$7.50, non-members \$10.00.

Christmas Bird Count - date to be decided

Sunday, 23rd January - Paget Marsh Boardwalk - see how this new interpretive nature trail will play a vital role in conservation education. 2.00 pm - on site.

Jan/Feb. Introduction to Birdwatching Course – see newsletter for details

Sunday, 27th February - Harbour islands cruise on Joffre Pitman's boat. Reservations: 292-1920 (after 6 pm)

Comments on the newsletter to Andrew Dobson, Vice-President. Email: adobson@warwickacad.bm