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Conservation Measures for the Eastern Bluebird in Bermuda by Andrew Dobson

The Eastern Bluebird *Sialia sialia* is a native species to Bermuda - the only location outside North America where this species breeds. Before man first settled in 1609, forest growth dominated the landscape. Bluebirds fed on coastal grasslands, nesting in old cedars and cliff cavities. There was an absence of non-avian predators. In the last 50 years, the pressures put on the bluebirds to find suitable nest-sites have been immense:

- House sparrow *Passer domesticus* introduced in 1870-74 increased rapidly and began to displace bluebirds from natural cliff and tree cavities.
- In the late 1940's and 1950's, a scale insect caused the elimination of over 90% of the cedar trees in Bermuda.
- European Starling *Sternus vulgaris* colonised in the 1950's and increased competition for nesting cavity species.
- House Sparrows use bluebird nestboxes and are responsible for the slaughter of numerous bluebird chicks but starlings can be kept out by keeping an entrance hole size of 1.5 ins.
- The Great Kiskadee *Pitangus sulphuratus* was introduced in 1956 (to control the *anolis* lizard population) but proved to have a wide-ranging food preferences including taking young bluebirds from their nests.
- Pesticides such as DDT were widely used in Bermuda in the 1950's and 60's especially on golf courses and gardens. Being an insectivorous species, one can only assume the bluebird must have suffered a decline.
- There has been a dramatic increase in the number of feral cats, especially since the introduction of cat feeding stations in the 1990's.
- The tropical fowl mite *Ornithonysus bursa* has caused a significant number of deaths in bluebird nestlings.
- Bermuda's human population has increased three-fold since 1900 to about 60,000. The resulting ubanisation means there are far fewer open spaces. Bluebirds disappear in favour of sparrows when housing densities reach 2 per acre (the mean housing density on Bermuda today!)
- Vandalism by mindless individuals has resulted in broken nestboxes and dead bluebirds.

However, great efforts have been made to halt the decline in bluebird numbers:

- A nest box scheme has been in place for many years. The campaign was initiated by the Bermuda Audubon Society in the 1950's.
- Workshops and publicity campaigns are regularly mounted.
- Efforts have been made to educate the public as to the plight of the bluebird and the part that individuals can play.
- Hundreds of bluebird nestboxes have been erected around Bermuda. The boxes keep out starlings but must be monitored constantly to keep out sparrows.
- Bluebird boxes have been erected in 'trails' on most of the golf courses.
- A small number of sparrow traps have been used to remove sparrows from bluebird nest-sites.

The current population of bluebirds in Bermuda is estimated to be about 500 individuals. The bluebird is now totally dependent on artificial nestboxes for breeding success and its survival in Bermuda can only be guaranteed with human help.

References:

Bermuda Audubon Society Newsletters. Vol.9 No.2 (Summer 98), Vol.10 No.1 (Spring 99), Vol.10 No.3 (Fall 99)

DeSilva, S. (1992) Bermuda Dept. of Agriculture and Fisheries – Monthly Bulletin Vol.63 No.11 Swann, W (1982) Bermuda Dept. of Agriculture and Fisheries – Monthly Bulletin Vol.53 No.7 Wingate, D.B. (1968) Bermuda Dept. of Agriculture and Fisheries – Monthly Bulletin Vol.38 No.3 (*This article was submitted for the latest issue of the UKOTCF's Forum News*)

How to reduce Starlings and Sparrows - an attempt to help Bermuda's Bluebirds David B. Wingate

Every spring I get calls from people complaining of sparrows or starlings nesting under the eaves of their houses. This poses a problem for three reasons:

- Noise in the roof and bird droppings on roof, window blinds and porches.
- Infestations of maywings which can invade the house.
- Accumulations of nest material in the roof, which can pose a fire hazard.

There is really only one practical way to deal with this problem - EXCLUSION. This is done by stopping down the eave gaps so that these species can no longer enter. It can be done with cement or by wedging or nailing hardware cloth (square mesh wire) over the openings. The latter method is best for retaining adequate roof ventilation. Starlings can prise open loosely installed or delicate mesh so a sturdy job should be done. One benefit of doing this in all houses that have a bird problem would be a reduction in the number of these pest species. That in turn would benefit the Eastern Bluebirds, which suffer severe nest site competition with these other two cavity nesting species. Sparrows and starlings also nest in rot cavities in trees, excluding bluebirds completely from such places. Starlings additionally nest in cavities in cliffs and drystone walls, often very near ground level. In the latter case the entrance holes are easily accessible so if you notice such nest sites it would be a good idea to block them with smaller stones or plugs as well, mercifully before the eggs hatch or after fledging. Starlings are automatically excluded from standard bluebird boxes because they are too large to enter the 1.5 in. diameter hole, but unfortunately this doesn't work with sparrows because they are the same size as bluebirds. Nest site competition with sparrows is, in fact, the major bluebird problem, resulting in the cruel pecking death of MOST bluebird broods during the earlier part of the nesting season. Fortunately most sparrows are finished nesting by early July, but failed bluebirds will continue trying into August when they can finally be successful.

Dealing with sparrow problems in bluebird boxes is a tough challenge. If you see a male sparrow entering your box when you know there are bluebird chicks in it you must act fast to save them. It comes down to a bitter choice. Either you catch and kill the male sparrow or the bluebird chicks are going to be pecked to death. We wish we could provide a fast and reliable 911 service for those who report this problem but in practice there is seldom someone available who can deal with the problem in time. There are two people in the Parks Dept. who are licenced to shoot offending male House Sparrows with an airgun and if done in time this usually buys the time for a bluebird brood to fledge. Trying to sneak up and catch the offending sparrow when it goes in the box is another, but very difficult option. Yet another is to quickly provide one or more nestboxes in the immediate area hoping to divert the sparrows. But if you do this, and it works, be sure to destroy the sparrow nest at regular intervals after the full egg clutch is laid to keep them from breeding successfully! Reducing the number of nesting places for starlings and sparrows in roofs and drystone walls won't help the bluebird's immediate problem, and may even aggravate it in the short run, but in the long run it should help by gradually reducing the pest bird population.

Audubon Society News

Cornell Laboratory of Ornithology

Have you ever wondered what exactly is going on in your garden bluebird box? You may be interested in visiting this great birding website at <u>www.cornell.edu</u> especially to view pictures from three video cameras, which have been placed inside bluebird boxes. The pictures from nest boxes in North Carolina, South Carolina and New York are updated every minute. You may like to join the Birdhouse Network by monitoring your nest box and contributing to a scientific study of bluebirds.

Proposal to increase annual membership dues

The present membership dues have not been raised for about 10 years. The executive committee proposes the following rates for membership, to be voted on at the Annual General Meeting:

- Student \$5.00
- Adult \$15.00
- Family \$25.00
- Life \$500.00

Membership is due for renewal in June of each year.

Society's Millennium Appeal

The Society is very pleased to report that almost \$50,000 has been raised to date. This is most encouraging – and a big 'thank you' to all those who have made a contribution. If you have not had the opportunity to make a donation or would like to know more about the Millennium Appeal, please contact the Society's secretary.

Audubon Newsletter by email

The Society mails about 350 newsletters, three or four times a year. Already about sixty members have contacted the Society requesting an email version. There are obvious benefits:

- Paper and postage costs are reduced.
- You receive your newsletter promptly.
- You can forward it other interested persons.
- Easy to store on your computer.

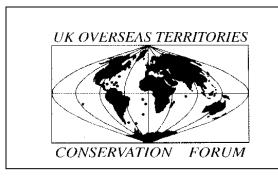
So if you have access to email and can open a Word document - please contact me at:

adobson@warwickacad.bm

If you would like both an email version and your regular mailed copy, please say so in your message.

Notice of A.G.M.

The Annual General Meeting of the Bermuda Audubon Society Thurs. 15th June 2000 7.30 pm Horticultural Hall, Botanical Gardens



The Bermuda Audubon Society is pleased to be an Associate Member of the UKDTCF. The UK Overseas Territories Conservation Forum exists to promote the co-ordinated conservation of the diverse and increasingly threatened plant and animal species and natural habitats of UK's Overseas Territories (UKOTs). It aims to do this by providing assistance in the form of expertise, information and liaison between nongovernmental organisations and governments,

both in the UK and in the Territories themselves. Founded in 1987, the Forum has gained worldwide support and recognition as being the best source of information and expertise on conservation in UK's Overseas Territories by both Governmental and non-governmental organisations. For more on the work of the Conservation Forum, visit its website: www.ukotcf.org

From the Andes to the Oriente - Birding in Ecuador

An Illustrated Talk by Jim Danzenbaker

From tinamous to tanagers, Ecuador has a vast array of habitats and avifauna that are sure to fascinate birders and non-birders. This travelogue will introduce the jewel of the Andes:

- the lowland jungles of the Rio Napo, a major tributary of the Amazon;
- the Papallacta Pass at 12,000 ft;
- and the hummingbird rich western foothills at 3000 ft.

Jim has led five tours in Ecuador and other countries including Venezuela, Panama and Brazil. He has journeyed to other neo-tropical destinations a number of times. He has acted as naturalist on bird and whale-watching trips in Monterey Bay in California since 1990, and in 1999 was a naturalist/leader/lecturer on board an Antarctic cruise which will be repeated this December-January. He recently started his own guiding company, Falcon's Eye Guiding for birding in the Northern California area as well as other locations in North and South America.

Jim's talk takes place on Monday 22nd May at 7.30 pm in the Horticultural Hall, Botanical Gardens. Members \$5.00. Non-members \$7.50

That Ruddy Turnstone Ron Porter

Christmas brought a special package to the Aquarium this year - a Ruddy Turnstone *Arenaria interpres*. Not just any turnstone, but one with bands on its legs placed there by researchers I worked with in New Jersey the previous May. Turnstones, knot, and sanderlings have been chosen as the indicator species to assess the health of Delaware Bay, to decide legislation regarding limits on fishing and other environmental legislation. Imagine measuring the health of your garden by how fast and high the corn grows. In the same manner shorebird weight is measured many times during May, and their average weight gain is used to gauge the productivity of the Bay. During May of 1999 we weighed and banded nearly 8000 shorebirds. Most banded birds are never seen again, especially away from the site where banding was done.

I was astounded when Robin Marirea (at BAMZ) showed me a photo he had taken of a banded turnstone and I recognized the bands! This bird had presumably left New Jersey, flown to the high Arctic breeding grounds far above Hudson's Bay, and then south again to end up in Bermuda! A trip of 4000 miles or more, much of it nonstop! Subsequently Robin and I caught the bird, band #1313-49359, and took his measurements. His weight was 95 grams. In New Jersey it was 157g! This great store of fat is the gasoline that allows him to fly continuously for many days, and Delaware Bay is the most important gasoline station on the flyway for these shorebirds. If the Bay degrades, they won't be able to gain weight fast enough to get to the Arctic on time and late breeding means death to late hatchlings! Our turnstone's spring molt is now nearly complete. He can be found around the flamingo pool, or poking in the grass by Shorelands or along the Inlet. His upper left leg carries a forest green flag (standing for North America), lower left a yellow band, upper right a metal band with the numbers (and a telephone number), lower right an orange band. He will leave for Delaware Bay some calm late evening in the next week or two, and arrive there sometime the next afternoon. We will be banding again this year in New Jersey. With luck, I'll see him in the next 3 weeks feeding along the Bay, and with amazing good fortune, maybe I'll find him in our nets again.

There is so much to be learned. It is not even known if he'll return to Bermuda again: he could be the first one to tell us if the flock is full of random or repeat visitors. I ask any birder who spots this fellow (even at the Aquarium) to call Robin Marirea at the Aquarium to let us know what he was doing and when. This fall maybe he'll return with some of his banded mates.

(*Ron Porter is an Audubon member an active volunteer with the Bermuda Zoological Society*)

Coffee and Birds – the Right Brew for Success

In a recent edition of the Royal Society for the Protection of Birds magazine *Birds*, Winter 1999, members were given the opportunity to reflect on their future consumption of wine – not the amount consumed – but whether or not the bottle contained a real cork. The increasing use of artificial cork is having a serious effect on the cork growing areas of Portugal - and a potentially disastrous effect on the bird life of the cork woodlands.

Now it is the turn of the coffee drinkers to take note! The latest edition of *Birding*, Vol.32 No.1, the magazine of the American Birding Association, highlights the advantage of shade-grown coffee (coffee grown under a tree canopy). A few facts:

- Coffee originated in East Africa, a shrub that evolved to grow under a dense canopy.
- After petroleum, coffee is second in terms of dollar value on world markets.
- 44% of Latin America's permanent cropland is devoted to coffee.
- Sun-grown coffee has been genetically bred to be sun tolerant and high yielding.
- In 1990, 69% of Columbian and 40% of Costa Rican coffee was grown in the sun.
- The monoculture of sun-grown coffee results in a very poor avian diversity. This is supported by much recent research.
- Sun-grown coffee plantations require more chemical inputs fertilizers, herbicides and pesticides than shade-grown coffee.
- Plantations with shade-grown coffee imitate many characteristics of a natural forest. They provide much needed bird habitat and result in diverse bird life.

Although sun-grown coffee may be higher yielding, there are numerous benefits recognised in shade-grown coffee. Shade trees:

- Are frequently nitrogen-fixing leguminous species.
- Prevent soil erosion and seldom require replanting or attention.
- Discourage weed growth and reduce farming costs.
- Provide wind protection.
- Provide mulch from fallen leaves.
- Protect hillsides from being washed away in major hurricanes, as was the misfortune of exposed coffee plantations in Nicaragua after Hurricane *Mitch*.

Millions of neo-tropical bird migrants pour through Central America – where loss of rainforest habitat could be further exacerbated by loss of coffee canopy. The problem is recognised - US agencies and World Bank departments are working to encourage shade-coffee farms in these countries. Conservation organizations have already teamed up with the likes of Starbucks to promote shade-grown coffee and the ABA itself promotes a Songbird coffee with the Thanksgiving Coffee Company. How can you help? Consumer demand is a powerful tool, so why not look for shade-grown coffee in your local supermarket, or ask for a cup from your coffee shop. If its not available – ask for it to be stocked. If you want to learn more – visit these websites:

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www.songbirdcoffee.comwww.sustainableharvest.comwww.si.edu/smbc/coffee.htmwww.conservation.org
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Bird Report (March – early May) Andrew Dobson

The months of March and April see the departure of our wintering birds, the passage of spring migrants and the arrival of summer breeding birds.

Departing birds: The unusual but confiding female **Eurasian Wigeon** was last seen on 14th April at Camden Marsh while the drake **Tufted Duck** with obvious 'tuft' moved from Warwick Pond to Spittal Pond where it was last seen on 29th April. The **Short-eared Owl** seen occasionally in the Cooper's Island area was last seen at Cooper's Point on 8th March. A **Horned Lark** was still present at the Civil Air Terminal on 9th March, while five **Snow Buntings** were at the same location on 22nd March. The **Summer Tanager** discovered at the Arboretum in February was still there on 15th March. Three **Savannah Sparrows** still remained at Kindley Field on 4th May.

Spring Migrants: Mid-March witnessed a good passage of pelagic seabirds. Manx Shearwaters were moving eastwards at up to 40 per hour on 17th March accompanied by the occasional Cory's Shearwater. To see storm-petrels it is necessary to go well off-shore. A Wilson's Storm-Petrel was seen during a whale-watching trip some 11 miles to the south-west just off Challenger Bank on 22nd April. A **Brown Pelican** (presumably a different bird to the one much earlier in the year) flew past the former Club Med property on 21st April. A **Purple Gallinule** was present during most of April at Paget Marsh Pond. A **Killdeer** was seen at St. Georges Dairy on 19th April. A calling **Sooty Tern** was a great find in the Castle Harbour Islands on 30th March, while a more expected tern - a Royal Tern was in the same vicinity between 8-20th April. Another scarce tern, the Least Tern was in Stocks Harbour on 28-29th April. A passage of Jaegers (Pomarine, **Parasitic and Long-tailed**) was noted on 16th April from the South Shore – some in pursuit of terns (probably Arctic Tern). A single Eastern Kingbird was watched fly-catching from the airport fence at Clearwater on 8th April while a rare spring migrant, a Grey Kingbird, was at The Talbot Estate on 7th May. Small numbers of **Purple Martins** and **Barn Swallows** have been seen throughout April, but a flock of nine **Bank Swallows** at Seymour's Pond on 21st April is probably a spring maxima for this species. Three **Chimney Swifts** were seen flying over Jenningsland on 29th April and a further two were flying over Cedar Grove fields on 31st April. Having previously been seen alive, a dead Grey-cheeked Thrush was taken from a cat in Smith's Parish on 5th May. An American Robin was in full voice in Jenningsland on 17th March. Cedar Waxwings obviously arrived during April with flocks reported in a number of localities including 16 flying above acrobats at the Agricultural Show on 28th April. Jenningsland hosted a Red-eved Vireo on 23rd April. The Botanical Gardens was the location for a much sort after spring migrant – a male Scarlet Tanager, which was noted on 21st April. A bright male Rose-breasted Grosbeak was seen at Port Royal golf course on 1st April with two more at the end of the month in Jenningsland. On a somber note, the passage of spring shorebirds has almost been non-existent. There are never many warbler species passing through at this time of the year, but they have also been extremely difficult to find. A male Black-throated Blue Warbler is very unusual in the spring, but one was present in the Riddell's Bay mangroves on 5th May. A singing **Dickcissel** was a real surprise on 2nd April in Paget.

Summer arrivals: With **Cahows** established on their nest sites since the beginning of the year, only two other bird species return to Bermuda to breed in the summer months. The **Longtail** (White-tailed Tropicbird) arrived in small numbers in February but by March and into April were a common sight around our coastline. The **Common Tern** has become the scarcest of our three breeding bird species. Only about twenty pairs breed and the first returning bird was noted on 1st April at Grotto Bay.

Finally, many people have commented on seeing a **Flamingo** at Warwick Pond. This bird is the one that has been at Spittal Pond for many years, an escapee from the zoo collection. The bird often seems to get restless at this time of year and has been commuting regularly between the two ponds.

Many thanks to the following for their observations: Mark Allaire, Eric Amos, Steven Burgess, Andrew Dobson, Peter Holmes, Jade Lovell, Jeremy Madeiros, Penny Soares, Paul Watson and David Wingate

Future Progamme

Monday 22 May	From the Andes to the Oriente - Birding in Ecuador	
	An Illustrated Talk by Jim Danzenbaker (See inside)	
Thursday 15 June	Annual General Meeting	
	Horticultural Hall, Botanical Gardens. 7.30 pm	
	(There will be a speaker following the AGM)	
Saturday 24 August	Audubon/BZS Natural History Camp for	
- Saturday 1 July	senior school students.	
Sunday 20 August	Nonsuch Island Trip - bring food, swimwear.	
	Boat departs BBSR 2.00 pm. Returns 7.00 pm	
	Members \$15.00 Non-members \$20.00	
	Reservations: Penny Hill 292-1920 (after 6 pm)	
Sunday 10 September	Spittal Pond Field Trip. Eastern car park 7.30 am	
Friday 6 October -	Paget Island Birding Weekend	
Sunday 8 October	bat leaves Ordnance Island 6.00pm. Cost \$40	
	Reservations: Penny Hill 292-1920 (after 6 pm)	

Bermuda Audubon Society Hotline 235-5513 or 297-2623

Phone in Bird News or Environmental Concerns or Membership Matters

Bermuda Audubon Society Committee 1999/2000

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