Ecology, behavior and reproduction of an introduced population of Red-vented Bulbuls (Pycnonotus cafer) in Houston, Texas

INTRODUCTION

The effects of invasive species upon native species and communities range from unimportant to devastating.

Red-vented Bulbuls (Pycnonotus cafer) are native to southern Asia.

Invasive in Arabia—U.A.E., Kuwait, Qatar, Oman.

Polyembia—Fiji, Samoa, Tonga.

Oahu, Hawaii.

Failed attempts at introduction: Parts of Australia and New Zealand.

Little work has been done with invasive birds in Texas. In June 2008 the Texas Invasive Bird Project was initiated to target six species invading the state.

OBJECTIVE:

Elucidate ecology, behavior and reproduction of invasive Red-vented Bulbuls in Houston.

METHODS

QUESTIONNAIRE DESIGN AND CIRCULATION

When designing the questionnaire, care was taken to create non-competitive questions that would elicit honest answers from otherwise competitive bird watchers.

Detailed instructions were provided directly on questionnaire with photographs for identification and questions clearly explained.

When the questionnaire was finalized hard copies were offered at monthly meetings of local bird watching clubs, annual bird watching festivals, circulated on Texas bird watching internet List-Serve, and posted at this website: http://www.hmns.org/files/invasivebirds.doc

ANALYSES

Data span June 2008-May 2012, but are still being collected for possible future analyses.

Data for the distribution portion of this study spanned through February 2013.

Older dates preceding the initiation of the study (June 2008) were obtained both from reporters and E-bird reports.

Results were tabulated in respective sections of a database for analyses. Anthropomorphic statements were interpreted, and numerical data were converted to metric.

RESULTS

GENERAL ACTIVITY PATTERNS

The most frequent three of the 12 activities were foraging (n = 69), perching or resting (45), and calling (28).

FORAGING ON INSECTS

12 cases of insect feeding:
Six involved feeding insects off a plant.
Bamboo (Bambusa sp.) twice.
Once each for fig (Ficus canariensis), Rangoon creeper (Quisqualis indica), and tomato (Solanum lycopersicon).

Tomato plants occupied by Stink bug (Pentatomidae or Coreidae) prey.

Other modes of foraging:
Sallying for flying insects (n = 2).
Masticating insect prey on the ground (n) or utility line (n).

FORAGING ON PLANTS

Consumed berries (n = 8 species), fruits (5), flowers (5), and buds (4).
Nine (45%) of the 20 species of plants were exotics found within the bulbul’s native range.
Six (30%) were exotics found outside the native range.
Five (25%) were Texas native plants.

HABITAT

Nearly all (n = 74, 96%) of the 77 reports described residential suburbs as the primary habitat.

Other cases:
Small fragments of secondary growth within a mosaic of urban parkland along White Oak Bayou (n = 2).
An individual flying across the street between parkland habitat and suburbs (1).

PLANT PERCHES

Mean perch height = 6.2 m (r = 1.7-12.9, N = 19).

Perched on 37 species of plants.
Most frequently used:
Bamboo and crepe myrtle (n = 14 each) fig and tallow (12 each).

Perched in 16 different species (44%) of Texas native plants.
15 species (42%) of exotics found within the native range of the bulbul.

Five (14%) species of exotic plants found outside the native range.

REPRODUCTION PHENOLOGY

18-25 March: Courtship display.
23 March-17 May: Gathering nest material.
Nests in crepe myrtle trees (Lagerstroemia indica).
Early May nest: 3.3 m high, tightly woven grasses and pliable vegetation.
Mid July nest: 3.0 m high, in center of tree.

Fledging observations:
March: female with fledgling.
21 April: two adults with smaller sub-adult.
24 April: a fledgling admitted to a wildlife rehabilitation clinic.
13-17 July: two fledglings being fed crepe myrtle.
21 July: a mother observed feeding a 7.5 cm high fledgling.
18 August: a fledgling admitted to a wildlife rehabilitation clinic.

1 September: a young bird begging for food.

TERRITORIALITY

Intraspecific territorial behavior involved a male fighting (wing flapping and pecking) its reflection in a window on multiple occasions. The mate would typically watch from a tree, but joined the window during feeding. This behavior has also been observed in congénere Chinese bulbuls (P. sinensis) (D. Brooks, unpubl. data).

DISTRIBUTION

Origin unknown
May have arrived on large cargo barges from southern Asia that docked in Ship Channel along the eastern reaches of Buffalo Bayou.
Gradual dispersal west and north along bayou system towards the White Oak Bayou basin.

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