

Preliminary study on the feeding ecology of squacco heron (*Ardeola ralloides*), little bittern (*Ixobrychus minutus*) and black-crowned night heron (*Nycticorax nycticorax*) at the wetland of Agras-Bryta-Nisi, Northern Greece

Penelope Karagianni^{1,2}, Effrosyni Parcharidou^{1,2}, Peristera Kourakli¹ and Vassilis Goutner²



¹Hellenic Ornithological Society (H.O.S.), Central Office: 24 Vas. Irakliou, GR10682 Athens, Greece, North Greece's Office: 8 Kastritsiou, GR54623 Thessaloniki Greece,

e-mail: pkourakli@ornithologiki.gr

²Department of Zoology, Aristotle University of Thessaloniki, GR-54006 Thessaloniki, Greece e-mail: vgoutner@bio.auth.gr



Introduction

The study took place at Agras Bryta-Nisi wetland (a NATURA 2000 area) where the HOS supports a project for under- and post-graduate students' practical studies (<http://blogs.ornithologiki.gr/agras/>). Our purpose was the investigation of feeding ecology of the herons *Ardeola ralloides*, *Ixobrychus minutus* and *Nycticorax nycticorax*.

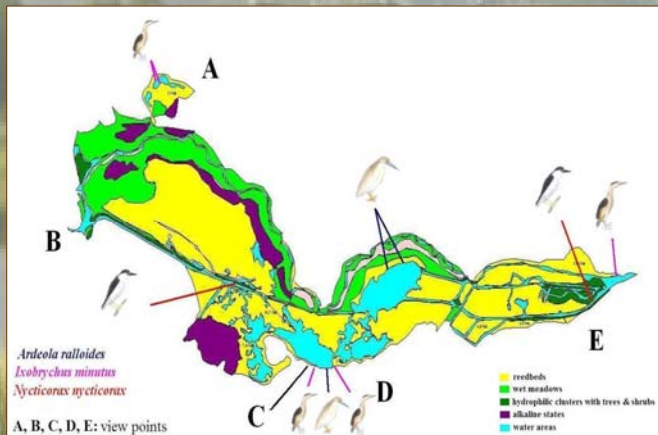
Methods

- Two surveys per month (May - August 2008) from pre-defined positions (morning - afternoon)
- For each species recorded:
 - ✓ habitat use
 - ✓ foraging method
 - ✓ pecking frequency, success and prey capture
 - ✓ prey length, compared to that of each herons' beak



Result

- ✓ *Ardeola ralloides* was tracked foraging in reeds
- ✓ *Ixobrychus minutus* was detected in reeds and aquatic vegetation
- ✓ *Nycticorax nycticorax* was detected in riparian vegetation



Wetland's map: Each heron preferred a different habitat.

Foraging methods

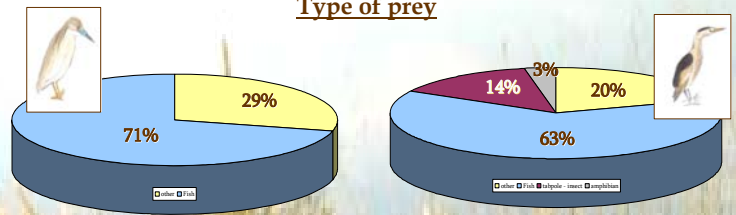
1. 'stand-and-wait'



2. 'walking slowly'

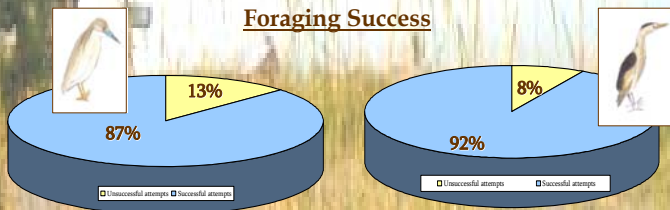


Type of prey



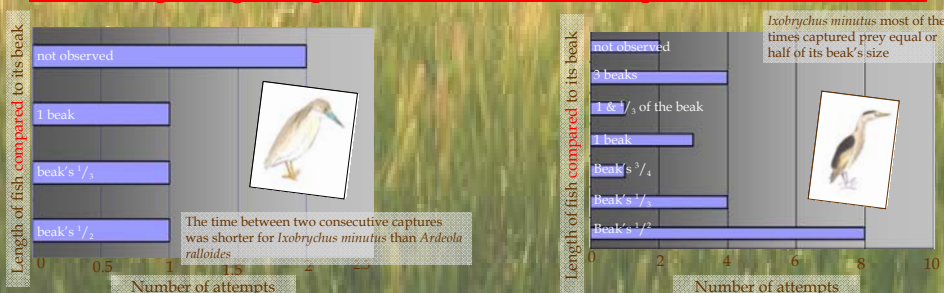
Both herons mostly used fish as prey

Foraging Success



The average foraging success was very high for both species.

Number of pecking attempts in relation to fish size compared to herons' beak size



Conclusion

- ✓ *Ardeola ralloides* and *Ixobrychus minutus* differ in prey capture techniques and prey size
- ✓ Foraging success is related to habitat and prey and may have conservation value for herons
- ✓ More surveys are required to identify the value of the wetland as a foraging ground for herons, particularly in relation to prey availability