

LASTOVO – A NEW BOTTLENECK SITE FOR THE MIGRATORY HONEY BUZZARDS *Pernis apivorus*?

Lastovo – novo ozko grlo za seleče se sršenarje *Pernis apivorus*?

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1. Introduction

Since the first alarming reports in the 1970s on the magnitude of annual bird killing in the Mediterranean countries, a lot of attention has been paid to several hotspots. The identification of bottleneck sites was important to estimate the impacts and to provide measures for their protection (BIJLSMA 1987). For Croatia, information on migrating raptors is still poor, and only little is known about the impact of hunting on migrants. The preservation of the stop-over sites along the 5,780 km long Croatian coastline is an important goal of the country's environmental policy ("Coast and islands: State and Threat" in RADOVIĆ 2000).

2. Method

The island of Lastovo, Croatia, was visited in the period from August 22nd 2001 to September 3rd 2001. Most observations of the migrating Honey Buzzards were made from the beach during a family holiday.

Flock size, location, time and direction of migration were registered (Table 1). Only twice I climbed the Hum mountain: on August 26th in the early morning hours to explore the site, and on August 31st at noon, after the first larger flock had arrived, but the weather changed and it was cloudy.

3. Results and discussion

The observation of 221 migrating Honey Buzzards without a permanent monitoring in the few days at the beginning of the migration season (Table 1) indicates that large numbers of raptors cross the Adriatic Sea from the coast of Dalmatia (Figure 1). Four migrating Marsh Harriers *Circus aeruginosus* and two Montagu's Harriers *C. pygargus* were also seen during the short holiday.

With its 415 m high mountain "Hum", Lastovo is an ideal site for the raptors to gain height before covering some 100 km long distance across the sea to Italy (Figure 1). For migrating birds of prey, long distance flights of 100 km or more are known from

Table 1: Observations of Honey-buzzards *Pernis apivorus* on Lastovo, Croatia, from August 23th to September 3rd 2001

Tabela 1: Opazovanja sršenarjev *Pernis apivorus* na Lastovu, Hrvatska, med 23.8. in 3.9.2001

Date/ Datum	Place/ Kraj	Number/ Število	Time/ Ura	Remarks/ Opombe
24.8.	Lučica	8	11.00	arriving from NNE over the sea
25.8.	Skrivena luka	12	13.15	coming low from the NE and using the upwinds at Hum
26.8.	Hum	1	7.00	flying over the top toward SSW (430 m high)
29.8.	Zaglav	1	14.00	low over forest towards Hum
	Zaglav	2	16.30	low over forest towards Hum
31.8.	Lučica	2	9.45	arriving 100 m high from N (Korčula, Kom ?)
	Lučica	40	10.15	using the upwinds over Lastovo, migrating SSW (Hum)
1.9.	Zaglav	50	16.00	arriving 100 - 200 high, using the upwinds
		30	16.10	arriving at a height of about 1000 m from NNW, both flocks continuing together very high towards Hum
3.9.	Lučica	75	18.00	arriving 200 m high from NNE and continuing to fly SSW
Total / Skupaj		221		

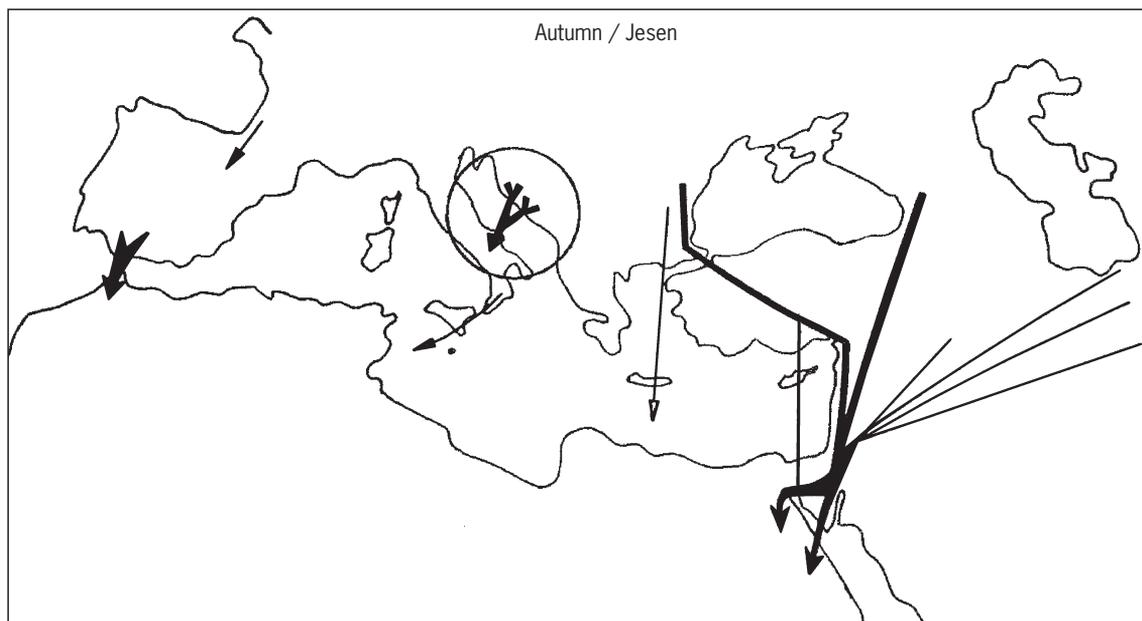


Figure 1: General map of raptor migration in the Mediterranean (BIJLSMA 1987). The circle indicates the new migration corridor between the Dalmatian coast via Lastovo to Italy.

Slika 1: Splošna karta selečih se ujed v Sredozemlju (BIJLSMA 1987). Krog označuje novi migracijski koridor, ki poteka z dalmatinske obale prek Lastova v Italijo.

several passages all over the world (KERLINGER 1989). The Croatian mainland with mountains, such as Biokovo Nature Park and the peaks of Peljašac Peninsula (Sv. Ilija 960 m) as well as the island of Korčula (e.g. Hum 376 and Kom 508 m), are ideal starting points for the trans-Adriatic flight. One flock of Honey Buzzards was still about 1000 m high when flying over Lastovo and was observed only by chance following a lower flying flock with the 10 x 40 Zeiss binocular, which had arrived some minutes earlier (compare KERLINGER 1989). The other arriving buzzards needed the island to gain height again and were easy to see.

As the coastal line near Split is vertical to the overall migration direction towards SW, it is understandable that the birds use the islands to cross the sea (Figure 1). Such island hopping is part of the water crossing behaviour of birds of prey (KERLINGER 1989). Lastovo is the last large island and appears to attract the birds from different directions (Table 1). It can be also used as a resting site during bad weather, as it has a more than ten plains with arable land - called "poljes" - dense Mediterranean evergreen forests with a high percentage of oak trees, and open dry rocky grassland. The island is a planned Nature Park in the Croatian Programme for Physical Planning (MPUGS

1999, map 18). It was not accessible in Yugoslav times for foreigners, but in the last few years the first tourists have arrived. It is reported by the locals that Italians are now visiting the island for "snipe" hunting.

4. Conclusion

Crossing of the Adriatic Sea during autumn migration has not been described as a common phenomena as yet, but the dealt with observation indicates a migration route from Croatia to Italy (Figure 1). Further information on the number and phenology of migrating birds on Lastovo would be important to clarify the importance of the island. In South Germany, the peak migration of Honey Buzzards is August 29th at the Schwäbische Alb and August 30th at Lake Constance (SCHUSTER *et al.* 1983). In Styria (Southeast Austria), the Honey Buzzard migrates later in September (SACKL in lit.). Considering that on Malta up to 300 Honey Buzzards were observed per day in autumn mostly between mid-September and early October (SULTANA *et al.* 1975), the peak on Lastovo is expected to be after my observation period, which was from August 23rd to September 3rd 2001. A monitoring of the autumn migration from the Hum mountain seems to be the best solution to clarify the

importance of the island. A cooperation with the fire control and the net of observation points along the coast and the island could also add some data and strengthen the system by bringing bird watchers to the mountains.

The protection and a proper management of Lastovo Island, including land-use, would be important to preserve its potential value as a stop-over site in the Adriatic sea. In addition, more attention is needed to preserve other sites on the coast, especially wetlands, as the pressure by the Italian hunting guest is extremely high on Croatia's avifauna, and as huge numbers of killed endangered and protected birds have been reported (e.g. SCHNEIDER-JACOBY 2000a for the Ferruginous Duck). A better protection of the unique sites as a basis for eco-tourism has been proposed (SCHNEIDER-JACOBY 2000b).

Summary

Between August 22nd 2001 and September 3rd 2001, 221 migrating Honey Buzzards were observed on the island of Lastovo, Croatia. This relatively large number of birds at the beginning of the autumn migration indicates a migration route from the coast of Dalmatia to Italy. Lastovo is an ideal stepping stone for raptors crossing the Adriatic Sea and should be protected as proposed by the Croatian Programme for Physical Planning. Further studies are needed to clarify the importance of this flyway.

Povzetek

Avtor pričujočega članka je med 22.8. in 3.9.2001 na Lastovu v hrvaškem Jadranu opazoval 221 selečih se sršenarjev. To razmeroma visoko število ptic v začetku jesenske selitve govori o očitni selitveni poti z dalmatinske obale v Italijo. Lastovo je torej idealno vmesno postajališče za ujede, ki prečkajo Jadransko morje, in treba ga je vsekakor zaščititi, tako kot je predlagano v hrvaškem programu za prostorsko načrtovanje. Sicer pa bi bilo treba za razjasnitev pomena te migracijske poti opraviti še nekaj nadaljnjih raziskav.

References

- BIJLSMA R.G. (1987): Bottleneck areas for migratory birds in the Mediterranean Region. ICBP, Study Report No. 18. Cambridge.
- KERLINGER, P. (1989): Flight strategies of migrating hawks. The University of Chicago Press, London.
- RADOVIĆ, J. (2000): An overview of the state of biological and landscape diversity of Croatia with protection

strategy and action plans. Ministry of Environment and Physical Planning, (Croatian edition: 1999: Pregled stanja biološke i krajobrazne raznolikosti Hrvatske. Državna uprava za zaštitu prirode i okoliša,) published in the official gazette under NN 81/99 dated August 3rd 1999, Zagreb).

MPUGS – Ministarstvo prostornog uređenja, graditeljstva i stanovanja (1999): Program prostornog uređenja Republike Hrvatske. Zagreb.

SCHNEIDER-JACOBY, M. (2000a): Freizeit und Entenschutz am Wasser – Sicherung der Brut- und Rastplätze von Kolbenenten und Moorenten in Deutschland. Schriftenreihe Landschaftspflege Naturschutz 60: 81 – 93, Bundesamt für Naturschutz, Bonn.

SCHNEIDER-JACOBY, M. (2000b): Tourism and Nature Preservation – Basic Ideas for a Co-operation in Croatia. Turizam/ Tourism: 48 (4): 329-340.

SULTANA, S., C. GAUCI & M. BEAMAN (1975): A guide to the birds of Malta. Malta Orn. Soc. Lux Press, Malta.

SCHUSTER, S. *et al.* (1983). Die Vögel des Bodenseegebietes. OAB – Ornithologische Arbeitsgemeinschaft Bodensee, Konstanz.

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