

beyond the March 2007 date and into the future. NTM is also working on other possible funding opportunities for the area such as funding for alternative energy for the visitors centre.

NTM now looks forward to the challenge of conserving one of Malta's best ecological sites and hopes

that once this project is completed, Dwejra will qualify as a World Heritage Site and Natura 2000 site. NTM feels that with the support of MEPA, WWF Italy and all stakeholders involved these targets will be reached.

PROTECTION OF MIGRATORY RAPTORS IN THE MEDITERRANEAN

Michele Panuccio • MEDRAPTORS (Mediterranean Raptor Migration Network)

The migration of raptors is a very spectacular event. In some places, in autumn and spring, it is possible to see thousands of birds of prey in few hours – a very impressive sight.

In the central Mediterranean area, although studies on the migration of raptors started at the end of the 60s, it wasn't till the late 80s that many ornithologists focused their attention on the event. Nevertheless, thanks to this we have collected a lot of information about migration through Italy, Malta and Tunisia. Some of these areas are now included in the "Important Bird Area" (IBA) list of all strategic areas for the protection of birds (1).

In the beginning, studies concerned only counts of migrating raptors but during the last years some researchers have started studying the behaviour of birds in relation to atmospheric conditions, water crossings, flocks, age and sex classes, navigation, orientation and information transmission.

Now we know at least 20 sites in Italy, one in Malta and another one in Tunisia. These places during the migration periods are visited by hundreds of birdwatchers coming from several countries (Table 1). Of these sites at least seven satisfy the conditions to be IBA.

Unfortunately, in many of these sites migrating raptors face dangerous threats and in particular certain hunting traditions that remain even though they were forbidden by national and international laws decades ago. This poaching is particularly serious in two sites: the Strait of Messina and in Malta.

The former is the most important "bottle-neck" in the central part of the Mediterranean, every spring an average of 20.000 raptors and tens of thousands of white and black storks cross the Strait (2). Birds concentrate along the Peloritani Mountains on the eastern side of northern Sicily and then they move along the coasts of Calabria. In this area, up till the 80s thousands of hunters used to wait for raptors in

bunkers built on the slopes of the foothills of Aspromonte. They used to shoot also from villages and towns along the coast. Since the mid-80s the actions of environmental associations with people coming from different parts of Italy, the Mediterranean and European countries, has assured a presence in the territory during the periods of migration working also as a deterrent for poachers. As a result, the situation is now improved and only around one hundred poachers continue to kill raptors.

During spring 2004, i.e. from the 27th of March to the 1st of June I counted "only" two hundred shots against the 4.000-6.000 counted ten years before (3). This may be because every year the Italian government organizes a team of agents working only to prevent and stop illegal hunting. This team spends a month in Calabria equipped also with two helicopters, and during this period the situation is not bad. Problems occur before and after their presence in the area, because the migration period goes on from the end of February to the end of June and along more than 60 Km of coast.

Given that in southern Calabria most hunters don't poach because they fear legal repercussions, if the situation were to change, with less control, they could start shooting raptors again. This type of hunting tradition is in fact still alive in parts of the population and, although significantly less than in the past, also among young people.

In Malta, the situation is worse. Bird hunting occurs with few limitations. Both in spring and in autumn hunters shoot at migrating raptors. On the 26th of April 2004 at least one thousand honey buzzards stopped at the Buskett Gardens, where 120 individuals were killed by poachers. Some years ago ornithologists estimated that half of the raptors migrating in autumn via Malta were shot (4). In recent years environmental associations have started systematic activities such as international camps in the mentioned sites in an attempt to improve the situation.

As time and research progress, we discover new sites and new threats against birds. In the central and southern parts of Italy illegal shooting activity occurs in most of the areas where raptors pass (less intense than in Malta or the Strait of Messina). Up to now we know that such sites are (from North to South): Circeo Promontory, the islands of Ponza, Ischia, Procida, some areas in Apulia, the Calabrian Appenines and several areas and small islands of Sicily and Sardinia.

Poaching of migrating birds of prey combined with the natural threats that raptors face during migration, like the sea and the desert, can present throughout the years a serious threat that can lead to

a decreasing population size in some species in central, northern and eastern Europe and greatly hinder the species conservation work in the breeding areas.

In order to change this trend, intervention at international level is necessary, not only to repress poachers, but also to establish long-term actions and activities in order to change the threatening culture and mentality of the population in those areas. Moreover, further studies on migration patterns are needed so as to improve knowledge concerning this natural occurrence and to chart all the sites which combine raptor migration and hunting traditions.

Table 1.
Sites with valuable concentrations of migrating raptors in the central Mediterranean area (5 modified).

SITE	PERIOD	SPECIES	NUMBER OF MIGRANTS	THREATS
MALTA	Spring/Autumn	HB, MH	1000	Yes
CAP BON	Spring/Autumn?	HB, MH, BK, MNH	Indeterminable	None ?
PANTELLERIA (6,7)	Spring/Autumn	HB, BK, MH	>4000, >5000	Yes
MARETTIMO	Spring/Autumn	HB, BK, MH, MNH (Spring), EV (autumn)	>2000, >5000	None
USTICA (8)	Spring/Autumn	HB, MH, BK, MNH, PH	>3000, <500	Yes
PANAREA (9)	Spring/Autumn ?	HB, MH, BK	>4000	None
STRAIT OF MESSINA	Spring/Autumn ?	HB, MH, BK, MNH, PH, K, RFF	Average of 18.494	Yes
ASPROMONTE (10)	Spring ?/Autumn	HB, MH, BK	<10.000	Yes
M. COVELLO	Autumn	HB, MH, BK	>2000	Yes
CAP OTRANTO	Spring	MH, HB, MNH, PH	>1000	Yes
CAPRI	Autumn	HB, MH	500	None ?
CIRCEO	Autumn	HB, MH	<2000	Yes
M. CONERO	Spring	HB, MH	>3000 ?	None
M. S BARTOLO	Spring/Autumn	HB, MH, K	>3000 ?, >500	None
M. COLEGNO	Autumn	STE	<500	None
ARENZANO	Spring/Autumn	HB, MH, STE	>3000 ?, >500	None
STURA VALLEY	Autumn	HB, STE	>5000	None
M. CIARM	Autumn	HB	>1500	None
ASOLANI HILLS	Autumn	HB	>5000	None

(HB = Honey Buzzard; MH = Marsh Harrier; BK = Black Kite; MNH = Montagus Harrier; PH = Pallid Harrier; K = Kite; EV = Egyptian Vulture; STE = Short Toed Eagle; RFF = Red Footed Falcon; K = Kestrel)

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