

**THE DADIA–LEFKIMI–SOUFLI FOREST NATIONAL PARK, GREECE:
BIODIVERSITY, MANAGEMENT AND CONSERVATION**

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**WWF Greece
Athens 2010**

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Suggested citation:

Author's name. 2010. Title of paper. – In: Catsadorakis, G. and Källander, H. (eds). The Dadia–Lefkimi–Soufli Forest National Park, Greece: Biodiversity, Management and Conservation. WWF Greece, Athens, pp. 000–000.

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Published by:
WWF Greece,
26 Filellinon str.,
GR-105 58 Athens, Greece
Tel:+30 2103314893, fax: +302103247578
e-mail: support@wwf.gr
<http://www.wwf.gr>

ISBN 978-960-7506-10-8

Typeset by ZooBo Tech, Torna Hällestad, Sweden

Printed by Schema + Chroma, GR-574 00 Sindos, Thessaloniki, <http://www.kethea-print.gr>

Illustrations by Paschalis Dougalis

Maps on pages 18–28, 36, 42, 86, 89, 217 and 231–243 prepared by Nikolaos Kasimis, those on pages 23, 27 and 232 by Konstantinos Poirazidis.

The book was printed on 130 g FSC-certified Sappi Era Silk paper.

Cover photo: Giorgos Catsadorakis.

The history of conservation efforts for the Dadia–Lefkimi–Soufli Forest National Park

Giorgos Catsadorakis

The biodiversity value of central Evros was discovered in the 1970s, but at the same time development in the form of an expanding road network, intensification of agriculture and land-reclamation works started to alter the broader area. The governmental “Evros Development Project” (1978–1980) included a huge plan for forestry development, with extensive logging and reforestation, which directly threatened the area’s habitats. IUCN and WWF International pressed the Greek government to establish a Nature Reserve in 1980. The effort succeeded against the opposition of people and authorities at many levels due to the coincidental presence of conservation advocates in key positions. From 1986 to 2006 a series of EU-funded projects implemented by coalitions of various local, regional and national, governmental and non-governmental entities, resulted in the setting up of a vulture feeding site and an ecotourism scheme around it, including visitor accommodation and interpretation facilities. After long delays, the Nature Reserve was officially turned into the Dadia–Lefkimi–Soufli Forest National Park in 2006, but responsible government support and effective management are still pending. WWF Greece’s catalytic involvement since 1992 ensured continuity, partnerships, coordination, scientific monitoring and adoption of crucial protection measures for the birds of prey and their habitats.

Keywords: Dadia, Greece, National Parks, conservation history, conservation

Introduction

The Dadia–Lefkimi–Soufli Forest National Park (hereafter DNP) is the last large area in Greece that was discovered and protected before the country became a member of the European Union in 1981 and gradually adopted the union’s nature protection legislation. DNP’s initial designation as a Nature Reserve (officially called “Area of Special Protection” according to the Greek law) had been achieved in the very short time of two years after its “discovery” and that was due to a series of favourable events and conditions. This protection status was used for the first time in Greece and has since been used only once – for part of the Zakynthos island.

In addition, DNP is one of the very few success stories in nature conservation that Greece can display. More than 16 years of efforts of WWF Greece, in combination with those of other stakeholders, such as the

Prefectural services and the Forest Service, have brought a subtle but rather important change in the mentality of people and services regarding nature conservation and management, which has led to improved management decisions. Nevertheless, the overall management of the DNP still remains unsatisfactory. Until now, it is the absence of major, large-scale threats demanding urgent measures that has helped to maintain a minimum level of protection of the area’s natural values rather than the presence of a robust and effective management authority implementing effective protection and management measures. However, this situation is changing. New threats appear, such as the enormous expansion of wind-turbine parks, while old, untreated threats seem to escalate, such as forest expansion, livestock decline, habitat and landscape alteration and use of poisons. All these necessitate immediate active management measures and monitoring, thus an effective and competent management authority is badly needed.

This article aims at describing the story of the area's progression from unprotected via Special Protected Area to its present status as a National Park, the main past and present institutional and operational problems, and the efficiency of management mechanisms. The timing of the main events shown in Table 1 can assist as a quick reference.

As conservation in the DNP has proceeded hand in hand with thematic tourism (vulture-watching), repeated reference to each of them will be made. The difficult discussion of whether, and under what conditions, conservation and management of vultures and other birds of prey should be disengaged from tourism, has not yet essentially started.

Table 1. Time line for the conservation history of Dadia–Lefkimi–Soufli Forest National Park.

1960s – 1970s: The rich wildlife of the area is “discovered” by foreign ornithologists.
1971: The first proposal for a protected area that would include the Evros Delta and the hilly woodlands to its north (Hoffmann et al. 1971).
1976: Start of extensive logging and forest track digging in the montane woodlands of central Evros.
1977: The Soufli Forest Department is created.
1978: The “Evros Development Project” is launched; first detailed report on the birds of prey of the central Evros (Hallmann in Britton et al. 1978); Hallmann informs IUCN's Greece Working Group on the threats to the area.
1979 (September): Proposal for the creation of a Nature Reserve around Dadia (Hallmann 1979).
1980: Designation of the Dadia Forest Reserve (Joint Ministerial Decision 360/76, 13-3-1980).
1986–1992: ACE and a few other smaller projects implemented (vulture feeding station fenced in and starts operating, observation hide built, bars across forest roads, guest house and visitor centre built, employment of two wardens, initiation of the ecotourism scheme).
1992 (September): ACNAT project is launched (goals: ensure guarding and monitoring, boost ecotourism, equip guest house and visitor centre; preparation of Specific Environmental Study (SES)). WWF Greece's scientific team settles in the area.
1994: WWF Greece helps to establish the Dadia Municipal Enterprise for Tourism, which runs the Ecotourism Centre. WWF Greece funds and supports only the Visitor Centre.
1995: The SES is accomplished by a team of scientists led by WWF Greece. Part of the SES pertains specifically to a (forestry) management plan for the two zones of absolute protection (core zones).
1995: The Evros Prefecture Dadia Environment Bureau is created; the two wardens become permanent employees.
1996 (–1998): Bird monitoring, food supply to vultures, ecotourism activities are supported jointly by WWF Greece, Soufli Forest Department, the local municipal enterprise and the Prefecture of Evros.
1998: Official approval and adoption of the SES and its proposals (core zone management plan included).
1998: WWF Greece launches a systematic effort to create base-line data on birds of prey and their populations; almost completely withdraws from tourism activities.
1999: The first draft of the Environmental Monitoring Plan is prepared by WWF Greece; first silvicultural interventions since 1980 made in the core zones.
2000: A year of test-implementation of the Environmental Monitoring Plan.
2001: A revised Environmental Monitoring Plan is prepared.
2002: A LIFE-Nature project is launched by WWF Greece and the Evros Prefecture: to increase forest clearings; to create a number of small dams; to create two additional feeding places for vultures; awareness campaign against poisoned baits; to continue and enhance monitoring activities; to produce a Black Vulture Management Plan; promote networking and collaborations regarding vulture conservation; diffusion of results.
2003: A Management Agency is created for the pending National Park.
2004: WWF Greece cuts funding to the Visitor Centre, a responsibility of the Management Agency.
2006: Designation of the Dadia–Lefkimi–Soufli Forest National Park (JMD 35/633, 13-10-2006).

The 1960s and 1970s: The “discovery” of the area’s natural wealth and the progression to a nature reserve

Initially, it was the bird-rich wetlands of Thrace, and especially the Evros delta, that attracted birdwatchers and ornithologists to Northern Greece. That the hills and mountains of the Evros prefecture harboured a variety of birds of prey was already known in the early 1960s, but more precise knowledge of their distribution was gradually collected during the 1970s and early 1980s. A small group of Dutch bird enthusiasts (including Ad Wittgen and Ben Hallmann) had been exploring the Evros prefecture in the mid 1960s. Initially they directed their attention to the Evros delta and the area of Avas-Aisimi. The spectacular large vultures and eagles always drew most attention, and during every trip to these areas, new discoveries were made, instigating more enthusiasm for new explorations and further research.

The first “official” document which addressed emphatically the need for a protected area, which would include the hilly areas of the central Evros, “from Mandra over Mikron Dereion and along the Bulgarian border to the boundary of the Rhodope prefecture following this border over Mt. Kallithea and then straight through Aisimi, Avas and Antheia...” (Fig. 1), thus including the Dadia Forest and the Evros Delta, appeared in 1971. It originated from three devoted researchers and advocates of Greece’s nature, who had created the Greek Working Group (Hoffmann et al. 1971) within the then International Union for the Conservation of Nature (IUCN). An interesting anecdote has it that in 1967 two of the authors of that report (W. Bauer and G. Müller) had been arrested and interrogated by the Dadia police when they made local people suspicious as they were bird-watching in the forest.

Development in the form of an expanding road network and intensification of agriculture started to change the face of the land of central Evros region during 1975–1978. Land-reclamation works radically changed the agricultural landscape of Dadia around the Mangazi (Diavolorema) stream by embanking the stream, land levelling, eradication of wet woodland and finally, land re-parcelling and re-allotment.

Following the turbulence in the relations between Greece and Turkey after the Turkish invasion of Cyprus in 1974, the Greek government decided to boost the economic development of the border areas and especially the underdeveloped Evros, the only continental border to Turkey. A special department called the “Evros



Fig.1. The central and south-eastern part of the Evros Prefecture indicating the Dadia–Lefkimi– Soufli Forest National Park (hatched), the Evros Delta and main sites of the initially proposed Evros nature reserve.

Development Bureau” was created within the Rural Development Service of the Ministry of Coordination. The three year (1978–1980) “Evros Development project” set up by this bureau, had a budget of 2,96 billion Greek drachmas (8,7 million €), 43% of which would be covered by a 15-year loan by the World Bank, with three years when no interest had to be paid. Among other things, the project included a huge plan for forestry development, with the building of forest roads, extensive logging and reforestation. This was anticipated to increase the annual harvest of timber products by 17,000 m³. In timber productivity terms, after 40 years (in 2018) reforestation with pine would yield a predicted 94,000 m³ (Papayiannis et al. 1980). As part of this project, a plan was prepared to systematically transform the rich, mature oak woodlands of the Evros hills into pine plantations. This would be a very destructive development for the biodiversity of the area, but even worse were plans to exploit for the first time the low-altitude mature pine woodlands. For this, a new forest department

was created in Soufli in 1977 and a large, private-owned wood-panel factory built near Provatonas.

In spring 1978, Hallmann accidentally met a small group of biologists from Station Biologique de Tour du Valat (Camargue, France), which was carrying out fieldwork in the Evros delta as a basis for a conservation scheme for this wetland. That contact was the beginning of cooperation for a broader conservation plan, in which the mountainous zone of the Evros prefecture with its birds of prey was also included. Annex II of the report for the Evros Delta contained the first detailed report on the status of birds of prey in the Evros prefecture prepared by B. Hallmann. It described the presence of a stunning 459–568 breeding pairs of 23–25 species of raptors for an area of ca. 2000 km² (Britton et al. 1978).

Logging and digging for roads had already started in 1976–1977, and in September 1978 Hallmann informed the chairman of the IUCN Greek Working Group, Luc Hoffmann, about what was happening. In December the same year, Maarten Bijleveld of IUCN went to Athens and discussed the matter with the Ministry of Coordination and the Hellenic Society for the Protection of Nature. It was agreed that Hallmann should be contracted jointly by WWF/IUCN and the Ministry of Coordination to work on the case. Hallmann took up the consultancy in February 1979 (WWF project No. 1684). In the first integrated report on the value of the area, accomplished by September 1979, Hallmann suggested the creation of a National Park around Dadia village with two core zones (Nature Reserve) and a buffer zone around them (Hallmann 1979).

Meanwhile the building of a road from Isiomata to Kapsalo (Gypaetoi), which passed through the nucleus of the as yet roadless area, started, and this speeded up things. At the end of 1979, David Munro, IUCN's Director General, went to Athens at the invitation of the government to discuss the issue with senior officials, including the World Bank project officer. The IUCN team suggested the possibility of linking conservation with tourism, stressing the fact that nature reserves create jobs, and pointed out Greece's acceptance of responsibility for conservation by opting for membership in the European Economic Community (the Bird Directive 79/409 had already been issued by that time) and by signing the Council of Europe's Convention for the Protection of Wildlife and Wildlife Habitats.

The initial proposal for the Nature Reserve referred to some 9,836 ha of the Dadia–Lefkimi–Soufli complex, consisting of a single block that would not only save the best parts of the precious raptor habitats but also allow proper management in the future, by restrict-

ing access and human disturbance. The Minister of Coordination, G. Paleokrassas, rejected the proposal. In the days before the government decision, and in the wake of political problems, Marinos Yeroulanos, the head of the National Council for Physical Planning and Environment (Ministry of Coordination) and an advocate of conservation, asked Hallmann to reduce the size of the suggested area and to elaborate two more proposals: one of about 5,000 ha and an intermediate one of c.7,200 ha, so that the minister would choose the latter "compromise". He also asked for a buffer zone in which the forestry plans would specify exploitation practices designed to minimise adverse effects on birds of prey. The plan would also compensate for loss of jobs by expanding conservation-based activities in the vicinity (Hallmann 1980).

Using the numbered forest compartments, as delimited in the exploitation study of the Evros Forestry Directorate, Hallmann had to cut out several pieces from the initially proposed area. He selected some that did include important nest sites but held a relatively low volume of wood, in the hope that the foresters would not be interested in those tree stands anyway. This resulted in the two strictly protected areas that exist essentially unaltered today: a large 6,400 ha southern block and a smaller one of 800 ha in the north, surrounded by a much larger buffer zone where a form of "controlled" exploitation was allowed. This delicate "compromise" left out a small part of the Black Vulture nesting range as well as part of the only remaining Imperial Eagle territory near Lyra.

Several further consultations took place between WWF International, the IUCN and the Ministry of Coordination, which eventually led to the decision that Ben Hallmann should undertake a new study on behalf of the National Council for Physical Planning and Environment and funded by WWF International. The study started in December 1979 and had as a goal to continue the Evros survey but also had a more far-reaching one, a survey of the birds of prey in Greece. Thus, during 1980, the inventory of birds of prey was completed for most of the prefecture, their distribution largely mapped, and five sub-areas of utmost conservation interest were identified and proposed for reserve establishment. Through this, the natural treasures of the Evros prefecture became known and evaluated better than ever before. The relevant part of the Dadia–Lefkimi–Soufli forest complex, a real wildlife paradise (which later became the Dadia Reserve), was only one of the five selected zones. It was, however, the most important one due to the presence of nesting Black Vultures, the

co-existence of many other rare raptor species within a limited area, and its splendid wild landscape. Among the most precious raptor species figured Bearded Vulture *Gypaetus barbatus*, Griffon Vulture *Gyps fulvus* and Egyptian Vulture *Neophron percnopterus*, White-tailed Eagle *Haliaeetus albicilla*, Imperial Eagle *Aquila heliaca*, Golden Eagle *A. chrysaetos*, Lesser Spotted Eagle *A. pomarina*, Booted Eagle *Hieraetus pennatus* and Lanner Falcon *Falco biarmicus*. That the other four areas in the prefecture proposed for protection, went into oblivion was chiefly because the difficult struggle for the conservation of the Dadia–Lefkimi–Soufli forest had highest priority and needed most effort.

1980–1993: The establishment of the Nature Reserve, the start of the vulture restaurant and the associated tourism infrastructure

The Dadia forest was designated as a Special Protection Area (Nature Reserve) with two Joint Ministerial Decisions of the Ministry of Coordination¹ and the Ministry of Agriculture² (JMD 2659/80, 4520/80) under the law 360/76. The first ended up in a decree (Government Gazette B 486/80) about the designation, while the second one delimited the buffer and core zones. G. Paleokrassas, Minister of Coordination at that time, much later confessed publicly that “When at that time, following Yeroulanos’s suggestion I signed the designation of the Dadia Nature Reserve for the protection of birds of prey, I was attacked fiercely even by colleagues, members of my own party in the parliament” (Gratsia 2004).

The process of *in situ* implementation of conservation measures in the Dadia–Lefkimi–Soufli forest was also very problematic. The status as Special Protection Area was an extraordinary form of protection, not foreseen in the forestry legislation within the jurisdiction of the Ministry of Agriculture (the legislation included designations such as National Forests, Aesthetic Forests, Monuments of Nature, etc.). Thus the Dadia Forest Reserve with its exceptional protection status was assigned to the responsibilities of the then Environment and Physical Planning Secretariat of the Ministry of Coordination, which was later incorporated in the newly created Ministry of Physical Planning, Housing and

Environment. As the Secretariat did not have any local executives, a large part of the implementation tasks was *de facto* assigned to the local Soufli Forest Department which, however, operated under the aegis of the Ministry of Agriculture, which formally had had nothing to do with the protection status assigned to the area; for this reason the Forest Department had no interest in its implementation³.

As nature conservation was a barely understood land management goal, not only the local people and loggers’ cooperatives but also development agencies and local government services opposed the conservation idea. The Soufli Forest Department (established in 1977) feared the result could be reduced logging effort and associated income loss for the local workers. Resistance also came indirectly from some foresters in Athens, from a workers’ union and politicians in Evros, and even from university professors at the School of Forestry in Thessaloniki, who wrote that logging could continue because the birds would move elsewhere. At some point, Luc Hoffmann and others at WWF/IUCN characterized the case as the most important wildlife conservation issue in Europe (B. Hallmann pers. comm.)!

The years between 1980 and 1983 were a period of continuous turbulence and opposition to nature conservation and the Nature Reserve. At that time, a large labour force was needed to replace oak woodlands with pine plantations and for the logging of the riparian forests of the Evros River to be transformed into cultivable fields. Also the systematic logging in the Dadia Forest by the Forest Service demanded large numbers of loggers. Loggers’ cooperatives flourished and within the area of the reserve they had 133–140 members (Hallmann 1979). The cooperative of the Dadia village alone, established in 1962, had more than 70 members. The designation of the reserve meant restrictions to logging, and local people reacted aggressively towards the suspension of logging in the core zones. The rage was mainly due to the fact that 1980 was the first year when the newly founded wood factory at Lyra ordered pine

¹ Currently Ministry of National Economy

² Currently Ministry of Rural Development and Food

³ Collision or gaps between and within authorities is one of the most important limiting factors in the protection of nature in Greece. This is a classic example where the designation of a status of protection is institutionalized by one entity (in this case the former Ministry of Coordination), while the executive and operational responsibilities are assigned to another authority (here the Ministry of Agriculture) which, although not formally competent, possesses the capacity to oversee operations and legislation implementation. This actually mirrors the discontinuity between legal competences and operational capacities, a problem that has only worsened over the years.

timber from the cooperatives for producing wooden fibre-boards. Thus, nature conservation prevented all future use by local loggers' cooperatives of the *Pinus halepensis brutia* pines, which only grow in the Dadia area and whose timber until that time had been useless to loggers. Immediately after the creation of the nature reserve, loggers' cooperatives felled hundreds of mature trees within the newly designated core zones; this fortunately did not affect the nesting area of the Black Vultures *Aegypius monachus* or those of the Imperial Eagle and the White-tailed Eagle.

In 1980, Dadia inhabitants kept Hallmann as a "hostage" and demanded to be visited by a delegation from the ministry to resolve the issues. Indeed the delegates came and promised to consider compensation measures. The local situation still looked grim but, following the delegation's promises, in 1982–83 a fully equipped saw mill was built outside Dadia village, and was granted to the Dadia loggers' cooperative to compensate for alleged income loss. Despite the efforts of the Forest Service (and even the much later efforts of other bodies), the mill unfortunately never got in operation because some loggers could not realize the importance of this alternative economic activity and blocked its operation.

Several years passed before the problems somehow were settled. In 1984, the General Secretariat of Youth funded a study (Handrinos and Hallmann 1984) in which the creation of ecotourism infrastructures and more specific management measures were proposed for the first time (vulture restaurant, management plan, ecotourism development plan, monitoring of birds of prey). Despite their hostile attitude to the establishing of the reserve and despite the total lack of state interest especially during the period 1980–1987, the locals respected the law and did nothing to disrupt the integrity of the raptors' nesting habitats. However, until the mid 1980s, the reserve existed mainly on paper. For that reason, in 1985, the (then) president of Dadia, Nikos Gaidatzis, asked Hallmann to try and find some solutions to the problems. Hallmann wrote a funding proposal and submitted it to the newly established Ministry of Physical Planning, Housing and Environment, which in turn applied for, and received, EU funds through the ACE (Action Communautaire pour l'Environnement) initiative for a 3-year project (1986–1989) in the Dadia Reserve. The project was implemented by the ministry services and the Soufli Forest Department. The rationale behind it was to materialize protection and conservation measures. A parallel objective was to support the vulnerable Black Vulture population with supplementary food provided in a vulture restaurant (lack of food was identi-

fied as a critically limiting factor for population increase) and at the same time develop a nature-tourism system based on it, which would hopefully provide work opportunities as compensation for the income loss caused by the logging restrictions associated with the creation of the reserve.

Within this and a few other smaller projects between 1987 and 1992, the vulture restaurant was built and fenced in, and a 4-wheel drive and a trailer were purchased to carry offal and carrion to it. An existing canteen at the edge of the village was partially equipped to serve as a café and visitor reception. N. Gaidatzis, who by sheer luck happened to be one of the very few inhabitants supporting the nature reserve cause, was very helpful and offered the place selected for the vulture restaurant, a flat rocky meadow on a hilltop, which turned out to be a nearly forgotten property of his family. An observation hide was built on a nearby wooded hilltop c. 600 m away from the feeding site, from where visitors could admire the vultures without disturbing them and enjoy the beautiful scenery of the southern core zone. In addition, bars were put up across certain forest roads to block access to sensitive forest areas. Most importantly, two young people from the area were hired as wardens and were trained to manage the feeding site and monitor the bird populations. These persons played a key role in the development of the area, since they were able to generate support from the local community and, at the same time, became the main contacts for outsiders who wished to invest in the conservation of the area (Valaoras 1998). Some necessary studies were also performed and the first steps in environmental education were taken. The vulture restaurant started operating. Its easily accessible food would secure that sufficient food was available to the vultures and eagles during periods when it was most needed, and help to keep especially the young birds within the protected area. The guards regularly brought food to the feeding site, usually offal from the slaughterhouse or whole carcasses of domestic animals, and this rapidly attracted a lot of carrion-feeding birds.

In 1989, the Ministry of Environment took the initiative to invite Roy Dennis, an RSPB bird expert, to visit the area and make his own assessment of management and conservation needs (Dennis 1989). He was in fact presented to the locals as a forester in an effort to temper the reactions of the local Soufli Forest Department and convince them that the measures undertaken meet the approval of international forest experts. In 1990, the Ministry of Environment, funded by the 1st Community Support Framework, purchased a fire-

fighting vehicle, a mini-bus to transport visitors to and from the observation hide and some other infrastructure to be used by the local municipality to cover ecotourism needs.

The basics for the development of ecotourism were there but only a few nature lovers visited the area. The state's intervention seemed to be restricted to providing some funds for infrastructure but strategically and administratively, it was in fact absent. It was at that time that WWF Greece entered the stage.

1992–1999: founding by WWF Greece and the full operation of the ecotourism scheme, research and monitoring; the road to the National Park

A gap in funding was covered by WWF International through its then office in Greece, and in 1991 the newly founded WWF Greece⁴ in full collaboration with the Ministry of Environment submitted a proposal for the Dadia Forest to the ACNAT EU initiative. The goals of the intended 3-year project were: (a) to ensure the continuation of guarding and monitoring of the birds of prey; (b) to take measures to further support and boost the development of ecotourism (establishment of a guest house and visitor centre, purchase of equipment, training and employment of guides, etc.); (c) to prepare a Specific Environmental Study⁵. Its results and prescriptions were later to form the basis for the transformation of the Reserve into a National Park. As a separate part of this study, a Core Zone (Forest) Management Plan should also be prescribed for the two core zone areas; this had been a totally neglected legal requirement since the establishment of the reserve in 1980.

The ACNAT project started in September 1992. Funding was also provided by a corporate sponsor, Allianz, a big German insurance company, whose support continued in later years too. A milestone had been

that two foresters, part of the WWF project team, settled in the area on a permanent basis and their interaction with local people were instrumental, especially in changing the locals' attitudes to the importance of their own area. Support for environmental interpretation and ecotourism was provided by completing the furnishing and equipment of the visitors' centre and by the creation of an information room with slide shows and video shows, displays and printed material for visiting tourists and school children. Two local guides were employed and trained. Monitoring of raptor populations continued in a more systematic manner and hiking trails were created (Valaoras 1998). The project was implemented mainly by WWF Greece and to a small part by the Soufli Forest Department. Although it was the first time in Greece that a Specific Environmental Study was undertaken, it was successfully accomplished in 1995 by a large team of experts employed by WWF Greece (Adamakopoulos et al. 1995). A tremendous effort was needed to bring together all the then existing knowledge about the entire ecosystem, and to fill major gaps through on-site research. This study laid the foundations for systematic environmental research in the Dadia area and is still an invaluable source of information. Also in 1993, supported by WWF Greece funds, the two wardens were sent on a training trip to protected areas in Britain.

In 1995, the Evros Prefect G. Dolios created a kind of Evros Prefecture Environment Bureau at Dadia and employed the two wardens on a permanent basis. This was an act of great importance as it indicated the regional political will to go on with conservation; it also demonstrated that the prefecture of Evros had adopted and supported the Dadia conservation concept. It also added tremendously to the prestige of the wardens, whose roles had already started to go beyond guarding duties. The complementary feeding of vultures carried out at the vulture restaurant started to show a clear effect on the breeding Black Vulture population, which rose from 9 to ca 20 pairs and showed an impressive increase in breeding success (Vlachos et al. 1999, Skartsi et al. this volume). Also, the feeding system became a great success and has ever since remained the central attraction for thousands of visitors, including many foreigners, school children, students, etc. In 1994, WWF Greece proposed and supported the formation of a Municipal Tourism Enterprise to operate the Ecotourism Centre as this would offer higher social and financial benefits to the local society.

In the period 1996–1998, WWF Greece judged it necessary to continue supporting its Dadia Project team

⁴ Until 1991, WWF operated a "delegation" in Greece with competence merely to oversee and manage funds directed to projects in the country. In 1991, a "National Office", i.e. an independent national entity attached to the WWF network, was established in Greece.

⁵ "Specific Environmental Studies" are essentially reconnaissance studies that gather, codify and analyse data and knowledge about areas of particular environmental importance. Relevant legislation sees such studies as prerequisites for the designation of management and development plans in the sites concerned.

by using funds provided by the MAVA foundation and Allianz. During that period the objectives of the local team were a continuation of those of the ACNAT project, i.e. monitoring of birds and their habitats in collaboration with the Soufli Forest Department and the local Evros Prefecture Environment Bureau.

In parallel, the Ministry of Environment, which was never represented locally on a permanent basis, and which relied essentially upon the effectiveness and competence of the WWF Greece local team, used funds of the 2nd Community Support Framework to finance the construction of a new, proper Visitor Centre building and to make a few other infrastructure improvements, a public awareness campaign, and the purchase of necessary monitoring equipment. The whole project was supervised by a joint commission of the Prefecture, the Soufli Forest Department and the Municipal Enterprise.

Due mainly to a lack of political will and inter-ministerial antagonisms, it took two years (!) for the official approval of the Specific Environmental Study (SES), first by the Ministry of Environment and, after a long time interval, by the Ministry of Agriculture in 1998. Dadia was a pioneer in this respect too, as this was the first approval of any SES in Greece. Admittedly, the approval came relatively quickly; other SES have been queuing for years. The role of the then Prefect G. Dolios was once more crucial in that he succeeded in convincing the Prefectural Council to adopt the SES. The Core Zone Management Plan, which was also prepared in 1995, was also officially approved in 1998 and the forest service ensured some funding of a study aimed at specifying management measures in the buffer zone.

In 1998, the WWF Greece team started a general, systematic census of birds of prey, which could be used as a future base-line reference. Towards this goal it attempted to incorporate under its umbrella a number of independent researchers or members of the academia, who did research in the area but created friction by acting antagonistically to the whole effort, to the detriment of the conservation of the area.

At the same time, WWF Greece strategically decided to withdraw its active involvement in ecotourism activities, but continued to cover the salaries and to provide training of the eco-guides. As it was becoming clear that sooner or later a Management Agency would be created to undertake the administration of the National Park (into which the reserve would turn), WWF Greece put all its efforts into creating a detailed data base and setting up an integrated monitoring system that could

be handed over as a legacy to the future Management Agency.

1999–2006: WWF's scientific monitoring plan and the LIFE-Nature project

In January 1999, a new era started for Greece after a municipal re-organisation⁶. Dadia was assigned to the Municipality of Soufli. Persons ill-disposed for the job and hostile to the presence of WWF were elected and this weakened the close collaboration between the local WWF Greece team and the municipality, but, in contrast, the collaboration continued unhindered with the Prefectural services and the local Forest Service. Nevertheless, the new phase of the WWF Greece project in Dadia was funded by the MAVA foundation and consisted mainly of the preparation of an environmental monitoring plan, the first draft of which was finalized by the WWF team in December 1999. In addition, for the first time the Soufli Forest Department carried out silvicultural interventions in the zones of absolute protection (core zones) according to the prescriptions of the Core Zone Management Plan, a work for which WWF Greece acted as scientific advisor.

In January 2000, a pilot implementation of the Monitoring Plan was started by WWF Greece in collaboration with the School of Forestry of the Aristotle University of Thessaloniki and the National Agricultural Research Foundation (NAGREF). This resulted in the first set of systematically collected data on the populations and distributions of birds of prey in the area as well as on habitats at the landscape level. After necessary revisions in 2001, the final draft was produced in early 2002 (Poirazidis et al. 2002).

In September 2001, WWF Greece, realizing the need for a number of urgent management interventions, submitted a proposal to the EU LIFE-Nature initiative. The reasoning behind the proposal was the following: (a) The processes of densification and expansion of the forest at the expense of clearings had to be

⁶ In 1999, the “Kapodistrias” Programme united communities under common municipal umbrellas. The programme sought to strengthen the capacity of local administrations in designating, planning and administering local policies and was the concluding chapter to the de-centralization policy that started in the early 1980s. Its importance became even greater given the emphasis that the EU placed on locally-driven policies and projects.

arrested; (b) as climatic conditions became drier from year to year, water bodies dispersed all over the forest had to be created for use by wildlife; (c) the battle against the use of poisoned baits, the most important mortality factor for vultures, should be intensified; (d) possible inter-specific competition between Black Vulture and Griffon Vulture at the single feeding site should be alleviated by providing food on a random schedule and within a widespread network of feeding sites thereby giving all individuals equal opportunity to discover and get access to food; and finally (e) the question whether the rather low breeding success of the Black Vultures could be connected to decreased genetic variability should be explored. The proposal was approved in July 2002 with code LIFE02/GR/8497. Implemented by WWF Greece, with a minor part played by the Evros Prefecture, the project commenced in 2002 and ended in September 2006.

The project's main goals had been to create and maintain forest clearings through logging; to create a number of small dams on five forest brooks; to create two additional feeding sites for the vultures with random provision of food; to carry out an awareness campaign against the use of poisoned baits; to continue and enhance monitoring activities through a number of specific studies (e.g. on the genetic diversity of the Black Vulture population and the mapping of the movements of the vultures through telemetry); to produce a Black Vulture Management Plan; and to promote networking and collaboration on vulture conservation within the area and, most importantly, across the border with Bulgaria. The monitoring of raptor populations should also continue, as well as that of vegetation and land use changes. Results and awareness efforts should be diffused through publications, internet, conferences, etc.

Thanks to the LIFE-Nature project the monitoring plan was fully implemented during five consecutive years – the first implementation of such a monitoring exercise in the country. The data collected resulted in a first integrated assessment of the population trends of most birds of prey (Poirazidis et al. 2006). The monitoring plan and the way it was implemented represent a case study often used nation-wide to illustrate conservation activities. At the same time, logging operations to create forest clearings presented a brilliant example of active management measures, which simultaneously benefited conservation and provided income to locals. Unfortunately, the campaign against the use of poisoned baits did not achieve its goals. Although it succeeded in establishing a strong case for the issue, it seems to

have failed in dealing with the root causes of the use of poisoned baits.

2003 to date: The designation of the National Park and the establishment of a Management Agency

Despite the continuous pressure exerted by WWF Greece, the signing of the Presidential Decree, which would create the National Park, was delayed for many years mainly because of the inability of the inadequately staffed services of the Ministry of Environment to cope with an overwhelming work load (R. Spyropoulou, pers. comm., WWF Greece 2005). In 2003, the Dadia area was among the first of 27 protected areas for which, for the first time in Greece, a Management Agency was created (Government Gazette 126/7-2-2003). The odd thing was that the National Park, although announced, did not yet exist officially, since the protection zones were still undecreed. After three problematic years with a Management Agency devoid of clear jurisdiction and mandate, on 30 August 2006 a Joint Ministerial Decision finally defined the borders and protected zones of the National Park (Government Gazette 911/13-10-2006); this meant that the National Park came into official existence. However, the Management Agency, which has an exclusively negotiating role, is still very far from being even least effective, as it lacks a secure financial support, has insufficient personnel, an unclear role and does not enjoy even a minimum of prestige among the public services involved in the management of the area.

At the same time the provision of food to the vulture restaurant is still being carried out and funded exclusively by the Evros Prefecture, while basic monitoring is carried out by the WWF Greece local team and the prefecture. The Management Agency is not yet ready to undertake either, nor is it in a position to stop uncontrolled interventions by various local stakeholders, such as the forest service, the local municipalities, etc. The two wardens once employed to guard the protected area are no longer employed, and the overall patrolling across the park is insufficient and ineffective.

As concerns the principal goal of the National Park, the conservation of the vultures and the birds of prey, the number of Black Vulture breeding attempts fluctuate around 20–24, while the overall population is estimated at c.90–100 individuals (Skartsi et al., this volume). Griffon Vultures are always present and they resumed

breeding within the park in 2007, while Egyptian Vultures have shown a dramatic decline during the last 10 years (Skartsi et al., this volume). On the other hand, all other species of birds of prey show no signs of decline, some even increase, but the disappearance of the Lanner Falcon at the beginning of the 21st century is noteworthy (Poirazidis et al., this volume). The Imperial Eagle and the White-tailed Eagle seem to attempt breeding occasionally. In total, a minimum of 367–391 pairs of 17 species of birds of prey bred in 2003 (Poirazidis et al., this volume), so the overall status of birds of prey and vultures must be considered as satisfactory.

Epilogue

In a country where the notion of nature conservation remains largely a rather incomprehensible form of land use, and where – uniquely among European Union countries – there is no authority corresponding to English Nature in England or Bundesamt für Naturschutz in Germany, and where the country's natural heritage is very poorly protected, sheer luck played a great role in the conservation of the Dadia forest. This pertains to the presence of certain people at the right place at the right time: Ben Hallmann had the necessary knowledge and passion, and made the right moves when he informed and motivated the right persons and organisations. Luc Hoffman's role as a chairman of the IUCN's Greek Working Group should not be underestimated. The designation of the protected area would not have been possible had not Marinus Yeroulanos been head of the Environment Secretariat of the Ministry of Coordination at that time. His role in convincing the minister to proceed with the designation was crucial. At the local level, it was an extremely fortunate coincidence to have Nikos Gaidatzis as the president of the municipality, perhaps the only person who had the self-confidence to confront the majority of his fellow villagers and support the protected area. He was farsighted, restless and had the ability to knock at the right doors to get what he wanted, and he managed to convince his community council that it should support him. The role of the then community secretary was also extremely helpful. The charismatic personalities of the two first wardens were pivotal both in attracting more support for the cause of the reserve and achieving a highly effective personal networking. Their knowledge of the area was invaluable for the locating of raptors' nests and territories. At later stages, the crucial role of the Prefect G. Dolios, who was a true advocate for the conservation of the

area, and who took important, politically risky initiatives must not be underestimated. Neither must that of Rania Spyropoulou, the officer at the Ministry of Environment, who was assigned to the Dadia case and who was representing the Ministry in the area between 1986 and 2003.

Although the main theatre of the whole process, i.e. the village of Dadia, suffered from the competition between local-politics groups, which during one period created friction and conflict, on the whole Dadia has been free of the antagonism between political parties, which in a country like Greece plays a major (negative) role when it comes to decisions on the management of the commons. For historical reasons, 70–80% of the villagers' votes go to a single major party. If Dadia had been like an average Greek village, where the strength of the two major political parties is more equal, then the road to a Nature Reserve most likely would have been blocked. This is because all kinds of local reactions against the reserve, the turbulence and the conflict that groups created around antagonistic parts would have become much more difficult to overcome because of competition between the political parties and their local interests.

The catalytic role of WWF Greece and its continuous on-site involvement must be stressed. Without its uninterrupted presence at Dadia, its transparent activities and its scientific backing, the necessary continuity of efforts and the securing of funds when state funding was lacking, would have been impossible and the whole effort would have collapsed. It would also have been almost impossible to achieve the coordination and collaboration of persons, stakeholders and services, with their widely divergent views, interests and capacities. As the Ministry of Environment had no local office, the whole process depended on the regular visits by its officers to the area, but the whole effort would never have concluded successfully had not the restless local WWF team gained the respect of the Ministry and, not least, of the local people and services. Together with the local wardens they formed a very efficient locally operating team.

It was due to WWF Greece's long term efforts and local presence that a remarkable progress was made with respect to both institutional matters and changes in the mentality, perceptions and attitude of people and services, at both a local and a regional scale. These steps forward are at present reflected locally in the fact that conservation measures are more easily accepted and negotiated, while forest management studies are much more holistic than in the past. There is also a much

stronger consideration of the requirements of the area's raptors and an acknowledgement of the importance of the forest among all stakeholders. The success of the Dadia ecotourism scheme may in fact have influenced the perceptions of development of the whole prefecture in a more environment-friendly direction. In contrast, on the national or central government level, little has been done to follow up and capitalize on the progress made locally. No steps have been taken towards resolving most of the major conservation problems of the area, i.e. to ensure food resources for the vultures, preserve landscape heterogeneity, avoid small scale landscape degradation, etc.

Today (2008) the Management Agency still has a personnel of merely two people, no infrastructure, not even premises in which to work, while its funding relies upon the political will and zeal of each Minister, i.e. there is no institutionally secured funding in the national budget; the flow of funds faces a plethora of bureaucracy problems and delays, but above all the Management Agency's main problem is that it does not have the prestige to perform its basic role, that of the catalyst, negotiator and coordinator of the various stakeholders and services that should work close together based on a prescribed plan for the conservation of the area. The patrolling mechanism is clearly insufficient. The municipalities, the prefecture and the forest services still continue to act in uncoordinated ways and their interventions mostly degrade the area's natural values. WWF Greece continues monitoring the Black Vultures and other raptors and uses the knowledge obtained to intervene publicly, motivate services to avert threats and to do their job. Without the presence of WWF Greece no one would have any basic data such as on the number of breeding Black Vultures and their breeding performance, numbers and ranges of other breeding raptors and many other issues of conservation interest, many of which frequently need urgent action.

However, arresting forest densification and expansion and a resulting habitat homogenization, prevention of large-scale fires through proper forest management and ensuring food resources for vultures, are all large-scale, long-term issues that cannot be tackled by any NGO alone but require the participation by the state, regional and local bodies. To date, despite that present forest management studies have fully taken into consideration the conclusions and suggestions of the SES (e.g. Conzorzio Forestale del Ticino 2006), no official service seems to bother seriously about these issues. As WWF Greece alerts, unless a systematic effort to face these problems responsibly is started, the wealth of the area which was

preserved with the unprecedented procedures described above, will, in the long term, be at stake.

Acknowledgements – Much of the information included in this article was based on interviews done by the author with Triantafyllos Adamakopoulos, Panayiotis Arabatzis, Nikos Gaidatzis, Ben Hallmann (through correspondence), Penelope Matsouka, Kostas Pistolas, Kostas Poirazidis, Dora Skartsi, and Rania Spyropoulou. The author has drawn a lot of information from the unpublished document “WWF Greece in Dadia: a case of Integrated Community Development Project” prepared by Valya Stergioti. Only persons no longer involved actively in the management and conservation of DNP are mentioned by name.

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