

Madeira laurel pigeon *Columba trocaz*

Background

The Madeira laurel pigeon Action Plan was adopted in 1996 (Oliveira and Heredia, 1996) by the Ornis Committee and endorsed by the Bern Convention. The implementation of the action plan was reviewed in 2001 (Gallo-Orsi, 2001) and 2004 (Nagy & Crockford, 2004).

This review evaluates the implementation of the species Action Plan from 2004 to 2010, in Madeira, Portugal, therefore covering the entire range of the species.

General overview

Progress in the overall implementation of the action plan is high (Average IS= 2.7) and due to the evaluation against the action plan targets, no further action is needed. The most progress in implementing actions has been made in enforcement of habitat protection through Natural Park regulations, reducing killing by humans and increasing public awareness of the Madeira laurel pigeon and its habitat.

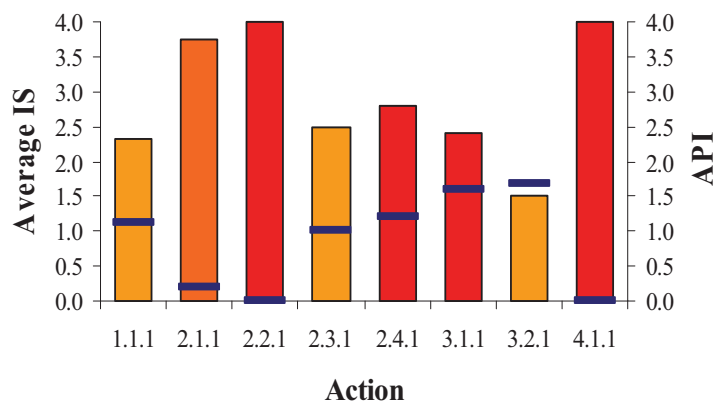


Figure xix Average implementation score (IS) and Action Priority Index (API) for each action listed in the Madeira laurel pigeon species action plan. Colours represent Priority Score.

Status review

The breeding population of the Madeira laurel pigeon is fluctuating and was last estimated at 8,500-10,000 individuals, from censuses conducted from 1986-2009²⁰⁹ by the Madeira Natural Park.

Table 47 Population estimate and trend by country

Country	Population at the time of the 1996 SAP (pairs)	Year	Population at the time of the 2004 review (pairs)	Year	Current population	Year	Population trend	Reference
Portugal (Madeira)	3,500-4,900	1994	4,142-16,910	2002	8,500-10,000 ind.	1986-2009	Fluctuating	Serviço Do Parque Natural Da Madeira 2006; 2009

²⁰⁹ Linear transect censuses conducted in 1986, 1995, 1999, 2003, 2006, 2009 (Serviço Do Parque Natural Da Madeira 2006; 2009)

Target(s)

In the short term, to maintain the population of Madeira laurel pigeon at no fewer than 3,500 individuals. In the medium term, to ensure its continued increase towards occupying all suitable habitats in Madeira. In the long term, to enable the recolonisation of areas of its former range through habitat restoration.

Evaluation

The short term objective has been met as the breeding population has been >3,500 individuals since 1986 (population size 8,500-10,000 individuals, 2009).

The medium term objective has also been met as the species now occurs in all laurel forest habitats, as well as edge areas. The species is widespread throughout all laurel forest areas, including areas of its former range (Serviço Do Parque Natural Da Madeira 2006; 2009)

Conservation and Legal Status

The Global IUCN Red List Category of the Madeira laurel pigeon is Near Threatened with criteria B1a+b(iii,v); B2a+b(iii,v); C2a(ii) because it has a very small extent of occurrence, although this is not yet severely fragmented or restricted to few locations. The population has declined as a result of habitat degradation, hunting and poisoning.

The species is listed as Rare (SPEC 1) under criteria <10,000 pairs in the European IUCN Red List (BirdLife International, 2004), and is listed in Annex I of the EU Council Directive on the Conservation of Wild Birds (79/409/EEC, 'Birds Directive') and in Appendix III of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention).

No measures have been taken to list the species in Appendix II of the Bern Convention.

The species has been protected since 1991²¹⁰ under national legislation.

Overview of past and current threats

There are no new threats facing the species additional to those listed in the 1996 SAP.

The main threat facing the species is unpopularity (particularly from illegal poisoning, although there have been no recent cases) due to the crop damage that they cause, however, this is only of medium importance. Livestock grazing was previously a medium level threat which is now not relevant since livestock don't graze in laurel forest nor in areas where laurel forest is increasing grazing. The importance of forest fires and habitat loss is still low and the impact of predation (by rats, feral cats and birds) remains unknown.

Assessment of the implementation

National and regional species action plans

The species action plan has been incorporated into national or regional legislation, and has been largely incorporated into the management plan for the Natural Park of Madeira, which was a high priority.

²¹⁰ In Portugal, the Madeira Laurel Pigeon is a protected species under Decreto-Lei 75/91, which adapts the EU Wild Birds Directive to Portuguese law.

Species conservation

Hunting and poisoning

A main threat to the species is unpopularity due to crop damage and so the Natural Park has provided farmers with three varieties of bird-scaring devices (gas canisters; holographic reflecting tape; and excluding nets), supporting around 1,000 farmers each year (the number of freely distributed devices is increasing). No compensation measures or in-kind payments for farmers have been undertaken as the regional government deems this action to be not relevant since bird-scaring devices are considered the best way to reduce conflict with farming interest. Unpopularity with farmers has led to government control programmes - three of which have been carried out in the last 10 years. Annual evaluations of the extent of crop damage by the species but was begun recently, but no results are available yet.

Illegal killing, particularly poisoning, of the species still occurs, mainly on agricultural land, however there is no recent data available to quantify this. Wardening inside the laurel forest and surrounding areas has been reinforced to improve enforcement of killing regulations, especially in sensitive areas. There are no hunters that specialise in pigeon shooting.

Predator control

It is likely that the species is predated by rats, however the impact of rat predation on Madeira laurel pigeon breeding success is not known, nor is the interaction between rats and the laurel forest and no work has been carried out on these actions. The Região Autónoma da Madeira has recently implemented a rat control project, but there are no results yet on the success of the project. Some work has also been started to reduce the amount of litter accessible to rats.

Site conservation

Practically the entire population of the species occurs in two IBAs, Laurissilva (IBA PT083) and Maciço Montanhoso Oriental (IBA PT084). Both sites are fully classified as SPAs and also protected under national law. The Laurissilva is also designated as an UNESCO World Heritage Site (site n^o934). In addition, all patches of laurel forest are designated as protected areas and all dense high-canopy forest below 950m receives maximum protection status. Between 50-90% of the population is in strictly protected areas.

A laurel forest Management Plan has been developed and legally approved and includes visitor number restrictions to the most sensitive areas. Several areas of the Natural Park of Madeira have Management Plans implemented and legally approved and funds are available for its implementation, but further funding is still needed.

Habitat conservation

Several recovery works inside the laurel forest and surrounding areas have been conducted by the Regional Government Services, including cattle removal and control of invasive plant species inside laurel forest. Several campaigns have taken place to inform tourists of the risk of fires. The natural park does not have appropriate means to extinguish fires, as recent fires on Madeira have highlighted, and so more work on this is still needed. An inventory of the laurel forest was recently completed and shows that laurel forest areas are expanding.

Monitoring and Research

National survey/ monitoring programmes for the species exist in Madeira although there is no monitoring programme in place for the species in protected areas. The species has been monitored continuously since 1986. Between 1995 and 2003 censuses were carried every 4 years and, since then, have been carried out every 3 years. In each census, transects cover both laurel forest and surrounding areas, covering a large habitat spectrum from 100-1600m.

There has been little work undertaken to monitor breeding success and to understand habitat preferences and selection of the species. There is a national species project/ working group and information is exchanged with researchers from the Canary Islands as well as several studies conducted in cooperation with the Canary Islands.

Public awareness and stakeholder involvement

An information centre has been set up in Funchal to inform people on the biotopes of the Natural Park of Madeira and the importance of the Madeira laurel pigeon and its habitat, but it is not a fully equipped visitor centre. Conferences for schools and trips to laurel forest have also been carried out. Information material on the Madeira laurel pigeon and its habitat have been produced and freely distributed.

Community financial support

Conservation of the Madeira laurel pigeon previously received support from LIFE projects and funding from the EU and other international sources but currently receives little funding.

Conclusions

Progress in the overall implementation of the action plan is high (Average IS= 2.7). A scores table of the implementation of each action (including a break-down of all actions into measurable targets) is provided in Appendix 1.

The targets listed in the action plan have now been met due to the high level of implementation of recommended actions, and so no further work is needed. However, successful actions should be maintained and there are still some knowledge gaps which could be addressed. The following actions should be considered:

- Maintaining the species habitat in good condition.
- Continuing and improving management plan implementation and increasing funding for management actions.
- Maintaining monitoring schemes and actions.
- Conducting of research on breeding success, habitat preferences and factors contributing to expansion movements outside laurel forest areas.
- Evaluating the impact of rats on the Madeira laurel pigeon, researching the dynamics of rat populations in the laurel forest and monitoring the rat control programme.
- Increasing measures to diminish litter in laurel forest areas.
- Ensure authorities have appropriate means to prevent and extinguish fires in the Laurel forest.
- Improving the species popularity through increased awareness and increased funding for the scaring devices distribution project.

Contributors

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Appendix 1

Table 48 Implementation of the action plan in Madeira. PS = Priority Score; PT= Portugal (Madeira); API = Action Priority Index; National IS = National Implementation Score.

Action	Measure	PS	PT	API
1.1.1	To ensure an adequate legal and financial framework for the conservation of laurel forests and the Madeira laurel pigeon	2	2.3	1.1
	a. The management plan for the Natural Park of Madeira developed, approved and adequate funds available for its implementation	3	3	1
	b. The species action plan is incorporated into the management plan.	3	3	1
	c. The species recovery plan is incorporated in national legislation.	1	3	1
	d. The species recovery plan is incorporated in regional legislation.	1	3	1
	e. MLP conservation receives funds from the EU and other international sources.	3	1	0
	f. The Natural Park of Madeira is designated as a UNESCO World Heritage site.	2	0	0
	g. The species is listed in Annex II of the Bern Convention.	1	1	1
	h. Abandonment of agriculture in key areas promoted by appropriate policy mechanism.	2	2	1.3
2.1.1	Reduce human predation	2.5	2.8	1.0
	a. Prohibition of killing the species enforced by the Natural Park.	3	4	0
	b. Number of wardens in areas where killing is a problem increased.	3	4	0
	c. Hunters specialising in pigeon shooting identified and movements observed.	3	0	0
	d. The Natural Park provides farmers with a variety of bird-scaring devices.	3	4	0
	e. Extent of crop damages evaluated annually.	2	3	0.7
	f. Efficient compensation plan developed.	2	1	0
	g. Farmers supported with in kind payments.	2	1	0
2.2.1	Enforce current habitat protection through the implementation of the Natural Park regulations	3	4	0
	a. All dense, high-canopy forest below 950m receives maximum protection status.	3	4	0
	b. Inventory of the laurel forest completed.	3	4	0
	c. All patches of laurel forest declared protected areas.	3	4	0
2.3.1	Improve breeding success	2	2.5	1
	a. Amount of litter accessible to rats reduced (to reduce predation by rats)	2	2	1.3
	b. Where and when necessary, visitor numbers are restricted.	2	3	0.7
2.4.1	Encourage the spread of the Madeira laurel pigeon into suitable habitat	3	2.8	1.2
	a. Feasibility of eliminating grazing from sheep and goats evaluated.	3	3	1
	b. Sheep and goats removed from sensitive areas.	3	3	1
	c. Shepherds prevented from setting fire to the laurel forest.	3	2	2
	d. Tourists informed of the risk of fires.	3	4	0
	e. The natural park has appropriate means to extinguish fires.	3	2	2
3.1.1	To obtain regular information on the size, range and trends of the Madeira laurel pigeon population	3	2.4	1.6
	a. Population monitoring ongoing.	3	4	0
	b. Breeding success monitored.	3	1	3
	c. Impact of rat predation on breeding success understood.	3	1	3
	d. Information exchanged with researchers from Canary Islands.	3	4	0
	e. Habitat preferences and selection understood in detail.	3	2	2
3.2.1	To promote better knowledge of the effect of rats on the general ecology of laurel forests	2	1.5	1.7
	a. Interaction between rats and the laurel forest studied.	2.5	1	2.5
	b. Rat control programme carefully monitored.	2	2	1.3
4.1.1	To increase public awareness of the Madeira Laurel Pigeon and its habitat	3	3.5	0.5
	a. Information centre set up to inform people on the biotopes of the Park and the importance of the MLP and its habitat.	3	3	0
	b. Information material produced and distributed.	3	4	0
	National & Average IS		2.8	2.7

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