

Blue chaffinch *Fringilla teydea*

Background

The blue chaffinch Action Plan was adopted in 1996 (Gonzalez, 1996) by the Ornithological 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 Tenerife and Gran Canaria in the Canary Islands archipelago, Spain, therefore covering the entire range of the species.

General overview

Progress in the overall implementation of the action plan is good but further work is still needed (overall IS=2.4). The SAP has been most successfully implemented on Gran Canaria, where the population is fluctuating. The two subspecies face different conservation problems and represent separate management units.

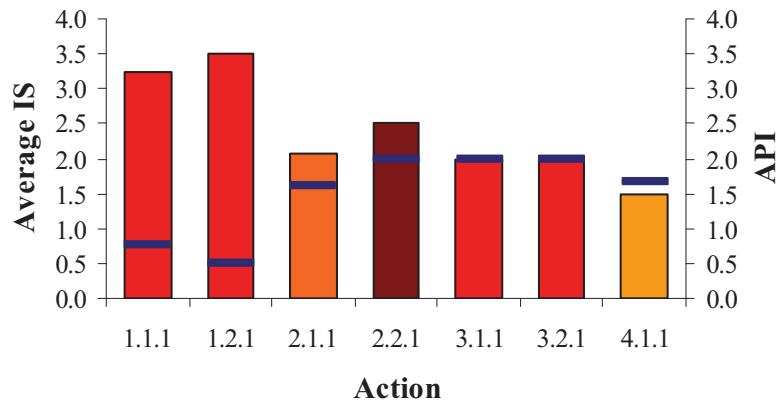


Figure iv Average implementation score (IS) and Action Priority Index (API) for each action listed in the blue chaffinch species action plan. Colours represent Priority Score.

Status review

The size of the total population is around 1,000-2,500 pairs, but this data is of poor quality and numbers are only suspected. The population size of 185-260 in Gran Canaria is a good quality estimate, obtained through extrapolation of linear transects in control area (however the surveys carried out did not include the summit habitat) by Carrascal (2010).

The population has evidently increased in the last 20 years, based on information from Lorenzo et al. (2007) and Martín (1987), however there has been no detailed census conducted that covers both the Tenerife population since then.

The distribution of the blue chaffinch is linked to *Pinus canariensis* forest and has different distributions on the two islands. It is estimated that the distribution of the species has increased by up to 32% in Tenerife and so is fairly widespread and common on the island (based on information from Martín, 1987 and Lorenzo et al., 2007) . In Gran Canaria, the species is highly restricted to the Integral Natural Reserve of Inagua (using non-pine areas as corridors), however it has recently been found to occur at the summit of the island which is outside of its previously known range (Lorenzo et al, 2007; P. Calabuig, pers. comm.).

Table 16 Population estimate and trend by country

Country/ Area	Population as of date of SAP	Year	Population at 2004 review	Year	Current population	Year	Population trend	Reference
Spain – Gran Canaria	185-260 ind	1991	-	-	129-358 ind	2010	Fluctuating	³⁹
Spain - Tenerife	-	-	-	-	1,000-2,500 pairs	1997- 2003	Increasing	⁴⁰
Spain - Total	1,000-1,500 pairs	1994	1,000-2,500 pairs ⁴⁰	2003	1,000-2,500 pairs	1997- 2003	Increasing	⁴⁰

Objective(s)

In the short term to conserve the blue chaffinch range and populations in the Canary Islands at no less than the level at the time of writing the action plan and in the medium to long term to increase the Gran Canaria population to the level where it is no longer classified as endangered.

Evaluation

The short term target of the action plan has been met because the range of both the Gran Canaria and Tenerife (Lorenzo et al, 2007) blue chaffinch has increased since the level of the 1996 SAP, and the population of the Gran Canaria blue chaffinch remains stable at around the level of the 1996 SAP, with the population of the Tenerife blue chaffinch suspected to have increased (Lorenzo et al., 2007).

The medium to long term target has not yet been met as the breeding population of the Gran Canaria blue chaffinch is <250 mature individuals (criteria for downlisting the subspecies to Vulnerable [[IUCN Red List Categories and Criteria: Version 3.1](#)]). This highlights the differing conservation statuses of the two subspecies which probably deserve separate attention.

Conservation and Legal Status

The Global IUCN Red List Category of the blue chaffinch is Near Threatened with criteria B1a+b(ii,iii,v); B2a+b(ii,iii,v); C2a(ii) nearly met because it has an extremely small range which is declining, and a moderately small population which has declined in the past ten years. However, the range is not yet severely fragmented or restricted to few

³⁹ Carrascal, 2010. Estimate obtained through fixed line transect counts covering 73% of the reserve. Actual figure 232 individuals, but 95% Confidence Intervals included.

⁴⁰ BirdLife, 2004. Refers to no actual figures, only represents the estimated size of the population.

locations. 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).

Regional conservation law has recently been changed, downlisting the Tenerife population from "Vulnerable" to a category of non-threat (so-called "Special Protection"), while that of the Gran Canaria population is maintained as "Endangered." The national law is being updated and prevails over regional law. The current national listing is "Endangered" (Gran Canaria) and "Vulnerable" (Tenerife). A draft submitted for public information reveals that the blue chaffinch national listing will remain unchanged.

The Red Book of Birds in Spain evaluated the two populations separately, that of Gran Canaria as "Critically Endangered" and Tenerife as "Vulnerable" (Madroño et al., 2004).

Overview of past and current threats

Forest fires are the highest threat to the species and its habitat. However, pine forests (*Pinus canariensis*) are very resilient to fire and if some unaffected areas of forest remain, the species will persist there. However, while pine forest quickly recovers from the fire, the forest understory does not. These plants are slow to recover, and are important in the diet of the blue chaffinch.

Fresh water fountains are being abandoned, which causes a high threat from lack of water in the summer. Due to the higher availability of habitat in Tenerife, it is only a medium threat. However, in the most xeric areas of the island where the species occurs, it is important to reconstruct, adapt or repair water sources. These actions have been taken with the small Gran Canaria population and have been very successful.

In Gran Canaria, blood samples are being taken to see if inbreeding is a threat, and it is currently believed to be a high threat.

Pine forests are popular for tourists and locals, and the island governments are implementing some management and closing of some of the areas. On Gran Canaria recreational disturbance is not a threat but the construction of roads is (for a rally that occurs annually on the island). By contrast, in Tenerife, recreational disturbance is a high threat, especially on weekends when many people go to the pine forests. Rat density in pine forests is lower than in laurel forests, so rats tend to only affect the birds at recreational areas, as do feral cats. As such, the threat of predation is of medium to low importance.

Forest habitat is being restored and so the threat from fragmentation is now medium to low. Some fragmentation does still occur, however, due to the low quality of habitat patches. The recovery of pine forest is a primary cause for the wider distribution of the species' population on Tenerife in the last decades. However, the limited extent of habitat in Gran Canaria is the major cause of the state of its small population. Recovery and improvement of pine forest in Gran Canaria is essential to facilitate the recovery of the species population.

Illegal capture for captive breeding is still very hard to quantify. There are records of these birds being kept abroad, but there has been no proper study on the impact and the threat level is considered to be low.

Assessment of the implementation

National and regional species action plans

The recovery plan⁴¹ is the same at national and regional levels. The plan was completed in May 2005. To date, a new recovery plan for the Gran Canaria blue chaffinch has not been approved.

Species conservation

Diversion of recreational activities

Access is restricted and monitored in Ojeda, Inagua and Pajonales pinewoods in Gran Canaria, but more work on this is still needed. In Tenerife, little work has been carried out to monitor access to the species' habitat. Tracks and recreational areas in Tenerife are closed during the hottest days of summer to prevent fires, and this reduction in disturbance during these times likely benefits the species.

Predator control

In Tenerife, alien species control is being implemented, but at low levels and only in recreational areas. A study in 2004 on recreational areas in Tenerife showed a high abundance of rats, feral cats and feral dogs (Lorenzo & González, 2004). In Gran Canaria feral cats were controlled between 1996 and present. At local important areas for the species, removal of natural predators (such as sparrowhawk) is recommended but only in cases where it is fully justified and there are no alternative options.

Further implementation of control plans is needed.

Captive breeding

In Gran Canaria there has been a new captive breeding scheme implemented since 2005, with the first chicks to be released in 2010. A full breeding protocol is now in place and results from the first pilot cases will determine the duration of this programme.

Prevention of illegal hunting/trade

Illegal trade has been recorded occasionally, but little information is available. It seems to be a problem mostly related to the Tenerife population. Very little work has been carried out to eradicate illegal trapping/trade or to collaborate with other European countries to reduce the trade on either island.

Drinking points

Although not listed as a recommended action in the SAP, drinking sites, especially in Gran Canaria, are a very important limiting factor for the expansion of the species. There are now more drinking sites available, also related to the expansion of the species, but there is not a regional scheme as to preserve them. Effective maintenance of drinking

⁴¹ BOC Decree 57/2005. Available at: <http://www.gobiernodecanarias.org/boc/2005/087/001.html>

sites is needed, or alternatively, measures to prevent drinking site drainage by commercial use of natural fountains. This measure is also needed in the more xeric pine forests of Tenerife.

Site conservation

At both islands, most of the distribution areas for the species have already been protected according to regional or national law. Most of the distribution range is also classified as Natura 2000 sites and Canary's Regional Protected Sites Network and around 50-90% of the population is included in IBAs (7 sites), SPAs (5 sites) and areas protected under national law. Land ownership remains an issue, as management of privately owned lands could represent a threat but there is political will to buy most of the land and minimize this problem.

Management plans for these sites have been drafted but not approved (these include site management, forest management, recreational sites management rules etc), it is urgent for them to be approved and implemented. However, this is relative since most of the plans of protected areas at regional level have been approved, but to date no SPAs have been approved.

Habitat conservation

Prevention of fires

Forest fires pose a serious threat to the species and so the implementation of fire prevention measures is of critical importance. In 2007 there was a major forest fire on Gran Canaria, destroying 95% of the Integral Natural Reserve of Inagua and reducing the population to 124 individuals (Seoane and Carrascal 2008). Another fire, in Tenerife, destroyed areas of the most pristine pine forests. It is clear that an event of this kind can seriously impact blue chaffinch populations in a very short time period.

Prevention campaigns are being implemented particularly during the summer. These campaigns are well resourced by the island authorities but, specifically in Gran Canaria, where the chaffinch population is smaller, fire management measures implemented to prevent fire expansion could actually cause a degradation of the breeding habitat for the species. There is a significant amount of human and technical resources dedicated to prevention of fires in pine forest in Tenerife in the summer.

Habitat restoration

Forestry management is pending approval by Regional authorities and Island Governments are now implementing management schemes, but without regional guidelines. The restoration of pine-tree forest is being implemented and there are clear and positive effects of this work.

In Tenerife, Monterey pines (*Pinus radiata*) are being replaced by Canary island pines (*Pinus canariensis*). In Gran Canaria there is no such plan, because there are records of the blue chaffinch using these trees for nesting (P. Calabuig, pers. comm.). However, past

replanting of pine forest in Gran Canaria (in 1960s-80s) has led to an increase in the suitable habitat for the species as the two main pine tree forests are now connected.

Monitoring and Research

There are no species monitoring programmes in place in Tenerife (except for monitoring of the Canary pine forests studying the bird community as a whole) and so regular monitoring of the population, at least every 4 years, is one of the top priorities for this species. However, regional authorities are not identifying this as a priority and so this needs much more attention. In Gran Canaria there are already monitoring schemes in place (conducted by the Cabildo de Gran Canaria and the Canary Islands Government), and it is recommended to continue this plan, including the newly identified habitat area at the summit of the island.

A national project/working group exists in Gran Canaria, formed by the Cabildo de Gran Canaria and Canary Islands Government, which organizes at least one annual meeting (SEO/BirdLife is invited to participate).

Public awareness and stakeholder involvement

In Tenerife there have been almost no public awareness campaigns to promote this species. It is highly recommended to carry out new campaigns dealing with the species and its habitat, to avoid human disturbance at recreational sites. In Gran Canaria, awareness of the species has increased at a steady rate, however, there is still much more to do and continuation of these campaigns is recommended.

Community financial support

One LIFE project⁴² has been implemented since 2004 which benefits the blue chaffinch. The project focused on restoration of pine forest damaged by fire on Gran Canaria running from 2009-2012 with a total budget of more than 1.1 million Euros, of which the total European Union contribution was 580,000 Euros.

The species has also benefited from two additional projects. One project on Gran Canaria, funded by the regional and island governments (total budget 1,457,980 Euros) focussed on the recovery plan for the blue chaffinch (2005-2010), the other is a University of Madrid research project.

Conclusions

Progress in the overall implementation of the action plan is fairly high but further work is still needed (Average IS=2.4). The most progress in implementing actions has been in Establish effective habitat and species protection for the blue chaffinch.

A scores table of the implementation of each action (including a break-down of all actions into measurable targets) is provided in Appendix 1.

⁴² LIFE project code: LIFE07NAT/E/000759

There are still major gaps and further implementation of the following actions is needed:

- Approval of the national ‘Ley del Patrimonio Natural y de la Biodiversidad’. This law includes the publication of a Species Action Plan for the species that could list all the major conservation actions needed.
- Approval of the Regional forestry management plan.
- Establishment of an alien species control plan.
- Establishment of a full monitoring and research scheme for the species.
- Establishment of a regional awareness-raising campaign.
- Improvement of the wardening scheme. In the case of Gran Canaria, specific attention must be given to the newer expansion areas for the species (such as Cumbre & Pinar de Tamadaba)
- Improvement of the corridor sites interconnecting the already known 3 occupied areas on Gran Canaria.

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Appendix 1

Table 17 Implementation of the action plan in the Canary Islands⁴³. PS = Priority Score; API = Action Priority Index; National IS = National Implementation Score.

Action	Measure	PS	ES-GC	ES-T	Ave. IS	API
1.1.1	Establish effective protection for the blue chaffinch	3	3	3.3	3.3	0.8
	a. Management plan prepared under national legislation.	3	1	1	1.0	3.0
	b. The revised National Endangered Species List lists the species in the appropriate category.	3	4	4	4.0	0.0
	c. The regional wildlife law protects the species outside protected areas.	3	4	4	4.0	0.0
	d. The species is listed in CITES.	3	3	4	3.5	0.5
1.2.1	Establish effective habitat protection for the blue chaffinch	3	4	3	3.5	0.5
	The species' habitat is fully protected under the Canary Islands Countryside law.	3	4	3	3.5	0.5
2.1.1	Protect the species from threats and disturbance	2.5	2.6	1.6	2.1	1.6
	a. Illegal trapping and trade eradicated.	3	2	1	1.5	2.5
	b. Collaboration with Italy, Germany and Belgium effective in reducing the trade.	3	1	1	1.0	3.0
	c. Fire prevention programme developed and running.	4	4	3	3.5	0.7
	d. Suitable means to fight fires available.	4	3	3	3.0	1.3
	e. Recreation and leisure areas provided in sites that do not require integral habitat protection.	1	0	1	1.0	1.0
	f. Access restriction to Ojeda, Inagua and Pajanale pinewoods enforced and monitored.	2	3	0	3.0	0.7
	g. Monitoring access to woods ongoing.	2	2	1	1.5	1.7
	h. Feral cat population controlled.	1	3	1	2.0	0.7
2.2.1	Initiate a habitat recovery programme consisting of an intense reforestation campaign	4	2	3	2.5	2.0
	Habitat recovery programme carried out.	4	2	3	2.5	2.0
3.1.1	Continue to monitor the population	3	3	1	2.0	2.0
	A full census of the population conducted followed by regular monitoring.	3	3	1	2.0	2.0
3.2.1	Conduct research on the biology, ecology, habitat preferences and breeding of the blue chaffinch	3	3	1	2.0	2.0
	a. Detailed studies on the biology and ecology of the species carried out in Tenerife.	2	0	1	1.0	2.0
	b. Studies on limiting factors in Gran Canaria continued.	3.5	3	0	3.0	1.2
	c. Studies on habitat selection completed in Gran Canaria.	3	3	0	3.0	1.0
	d. Captive breeding programme implemented.	1	3	0	3.0	0.3
4.1.1	Increase awareness and education of the need to conserve the BC and its habitat	2	2	1	1.5	1.7
	Public awareness and education campaign carried out.	2	2	1	1.5	1.7
	National IS and Average IS		2.8	2.1	2.4	

⁴³ ES-GC = Spain-Gran Canaria; ES-T = Spain- Tenerife.

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http://www.mma.es/portal/secciones/biodiversidad/especies_amenazadas/catalogo_especies/vertebrados_aves/pdf/ver340b.pdf (Gran Canaria listing)

www.grancanaria.com

www.tenerife.es

www.seo.org

www.gobiernodecanarias.org