

## ***Columba trocaz* (Madeira Laurel-pigeon)**

### **European Red List of Birds**

### **Supplementary Material**

The European Union (EU28) Red List assessments were based principally on the official data reported by EU Member States to the European Commission under Article 12 of the Birds Directive in 2019-20. For the European Red List assessments, similar data were sourced from BirdLife Partners and other collaborating experts in other European countries and territories. For more information, see BirdLife International (2021).

#### **Contents**

Reported national population sizes and trends  
Trend maps of reported national population data  
Sources of reported national population data  
Species factsheet bibliography

#### **Recommended citation**

BirdLife International (2021) European Red List of Birds. Luxembourg: Publications Office of the European Union.

#### **Further information**

<http://datazone.birdlife.org/info/euroredlist>  
<http://www.birdlife.org/europe-and-central-asia/european-red-list-birds-0>  
<http://www.iucnredlist.org/regions/europe>  
<http://ec.europa.eu/environment/nature/conservation/species/redlist/>

#### **Data requests and feedback**

To request access to these data in electronic format, provide new information, correct any errors or provide feedback, please email [science@birdlife.org](mailto:science@birdlife.org).

*Columba trocaz* (Madeira Laurel-pigeon)

**Table 1.** Reported national breeding population size and trends in Europe<sup>1</sup>.

Country (or territory) <sup>2</sup>	Population estimate				Short-term population trend <sup>5</sup>				Long-term population trend <sup>5</sup>				Subspecific population (where relevant)
	Size (individuals) <sup>3</sup>	Europe (%)	Year(s)	Method <sup>4</sup>	Direction <sup>6</sup>	Magnitude (%) <sup>7</sup>	Year(s)	Method <sup>4</sup>	Direction <sup>6</sup>	Magnitude (%) <sup>7</sup>	Year(s)	Method <sup>4</sup>	
PT: Madeira	10000–14000	100	2013-2018	complete	+		2008-2018	complete	+		1980-2018	complete	
EU28	10000–14000	100											
<b>Europe</b>	<b>10000–14000</b>	<b>100</b>											

<sup>1</sup> See 'Sources' at end of factsheet, and for more details on individual EU Member State reports, see the Article 12 reporting portal at <http://bd.eionet.europa.eu/article12/report>.

<sup>2</sup> The designation of geographical entities and the presentation of the material do not imply the expression of any opinion whatsoever on the part of IUCN or BirdLife International concerning the legal status of any country, territory or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

<sup>3</sup> In the few cases where population size estimates were reported in units other than those specified, they were converted to the correct units using standard correction factors.

<sup>4</sup> The 'method used' (replacing the data 'quality' assessment in the 2015 European Red List) is reported as: a) Complete: complete survey or a statistically robust estimate; b) Partial: based mainly on extrapolation from a limited amount of data; c) Expert: based mainly on expert opinion with very limited data; d) Defficient: insufficient or no data available.

<sup>5</sup> The robustness of regional trends to the effects of any missing or incomplete data was tested using plausible scenarios, based on other sources of information, including any other reported information, recent national Red Lists, scientific literature, other publications and consultation with relevant experts.

<sup>6</sup> Trend directions are reported as: increasing (+); decreasing (-); stable (0); fluctuating (F); or unknown (?).

<sup>7</sup> Trend magnitudes are rounded to the nearest integer.

## Trend maps

A symbol appears in each country where the species occurs: the shape and colour of the symbol represent the population trend in that country, and the size of the symbol corresponds to the proportion of the European population occurring in that country.

### KEY

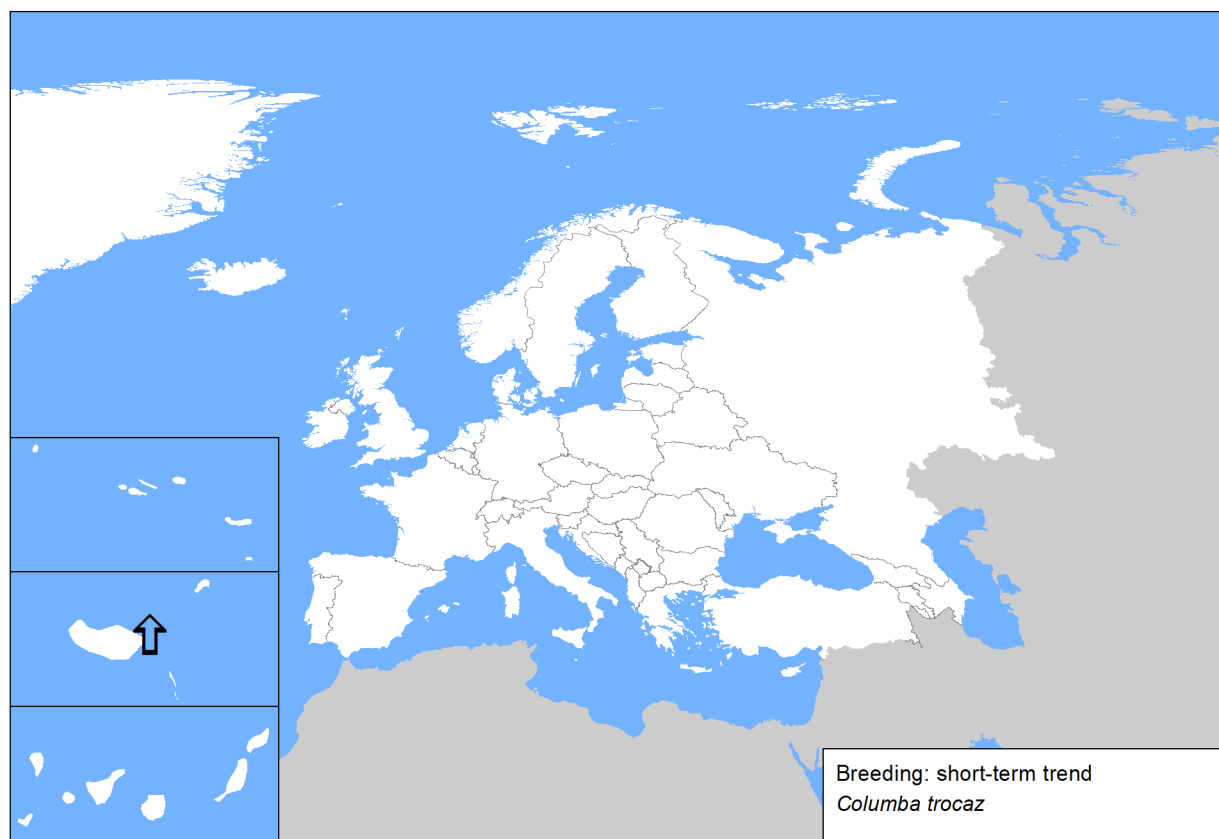
- |   |                                  |
|---|----------------------------------|
| ↑ Large increase ( $\geq 50\%$ )        | ↓ Large decrease ( $\geq 50\%$ ) |
| ↑ Moderate increase (20–49%)            | ↓ Moderate decrease (20–49%)     |
| ↑ Small increase ( $< 20\%$ )           | ↓ Small decrease ( $< 20\%$ )    |
| ↑ Increase of unknown magnitude         | ↓ Decrease of unknown magnitude  |
| ■ Stable or fluctuating                 |                                  |
| □ Unknown                               |                                  |
| ○ Present (no population or trend data) |                                  |
| × Extinct since 1980                    |                                  |

Each symbol, with the exception of Present and Extinct, may occur in up to three different size classes, corresponding to the proportion of the European population occurring in that country.

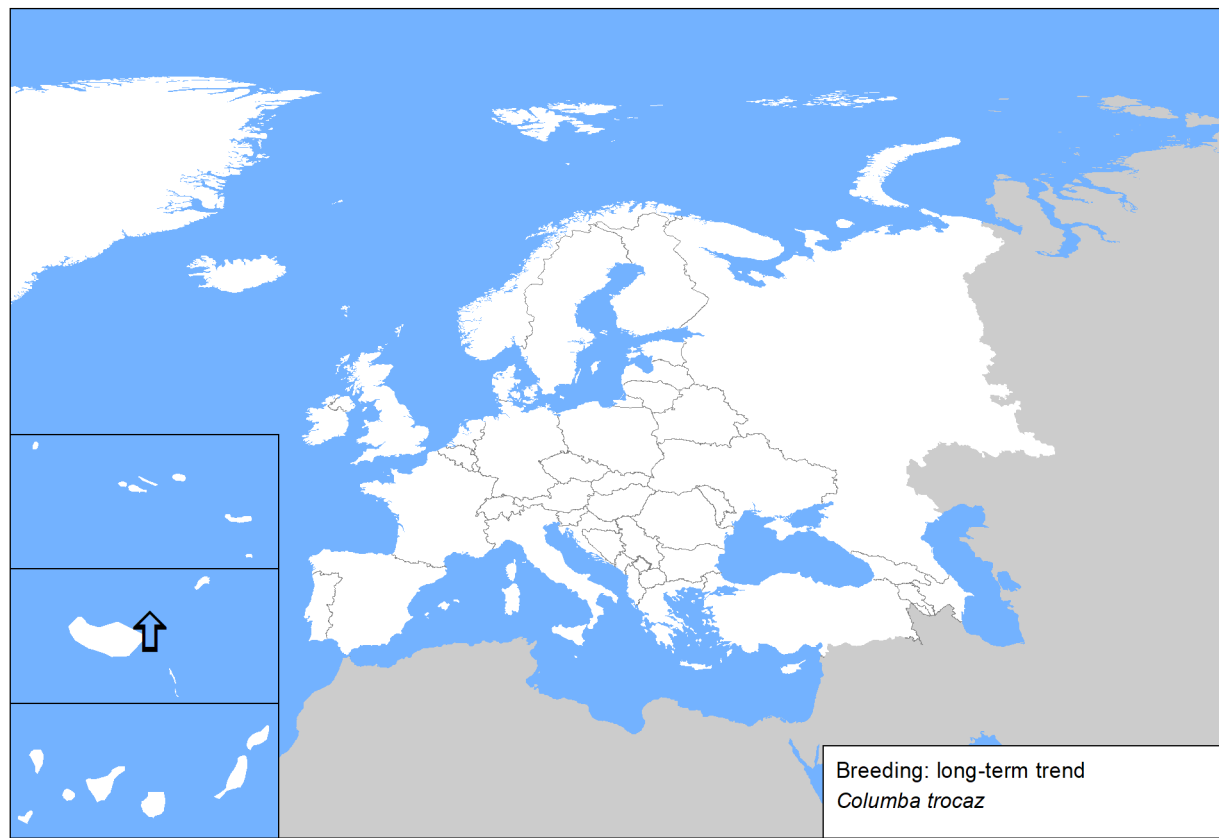
- ↑ Large:  $\geq 10\%$  of the European population
- ↑ Medium: 1–9% of the European population
- ↑ Small:  $< 1\%$  of the European population

The designation of geographical entities and the presentation of the material do not imply the expression of any opinion whatsoever on the part of IUCN or BirdLife International concerning the legal status of any country, territory or area, or of its authorities, or concerning the delimitation of its frontiers or boundaries.

**Figure 1.** Breeding population sizes and short-term trends across Europe.



**Figure 2.** Breeding population sizes and long-term trends across Europe.



*Columba trocaz* (Madeira Laurel-pigeon)

## Sources

### PT: Madeira

<b>Breeding population size:</b> Relatório interno do IFCN, IP-RAM ( <a href="https://ifcn.madeira.gov.pt/biodiversidade/projetos/pombo-trocaz.html">https://ifcn.madeira.gov.pt/biodiversidade/projetos/pombo-trocaz.html</a> ) 1º Atlas das Aves Invernantes e Migradoras de Portugal <a href="https://drive.google.com/drive/folders/1MJWLVRhU9A8IgbvY2DhPiFm_Tp1hD25">https://drive.google.com/drive/folders/1MJWLVRhU9A8IgbvY2DhPiFm_Tp1hD25</a>
<b>Breeding short-term trend:</b> Oliveira, P., Jones, M., Caires, D., Menezes, D., 1999. Population trends and status of the Madeira Laurel Pigeon <i>Columba trocaz</i> , Bird Conservation International (1999) 9, 387-395. Oliveira, P., Rosa, A., Quintal, C., Menezes, D., Sousa, F., Fagundes, I., Sousa, L., Pestana, N., 2003. Population trends between 1995 and 2000 and status of the Madeira Laurel Pigeon, <i>Columba trocaz</i> , Proceedings of the I Symposium: Island ecosystem, conservation, and molecular Approach, CCBG, Funchal. <a href="https://ifcn.madeira.gov.pt/biodiversidade/projetos/pombo-trocaz.html">https://ifcn.madeira.gov.pt/biodiversidade/projetos/pombo-trocaz.html</a>
<b>Breeding long-term trend:</b> Jones, M.J., Hamer, K., Hill, J., Hounscome, M.V., Jepson, P., Lace, L.A., Read, H., Turtle, C., 1989. A survey of distribution and habitat preferences of the long-toed pigeon, <i>Columba trocaz</i> in Madeira, ICBP Study report No. 32. Oliveira, P., Jones, M., 1995. Population numbers, habitat preferences and the impact of the Long-toed pigeon, <i>Columba trocaz</i> , on agriculture, Boletim do Museu Municipal do Funchal 4, 531-542. Oliveira, P., Jones, M., Caires, D., Menezes, D., 1999. Population trends and status of the Madeira Laurel Pigeon <i>Columba trocaz</i> , Bird Conservation International (1999) 9, 387-395. Oliveira, P., Rosa, A., Quintal, C., Menezes, D., Sousa, F., Fagundes, I., Sousa, L., Pestana, N., 2003. Population trends between 1995 and 2000 and status of the Madeira Laurel Pigeon, <i>Columba trocaz</i> , Proceedings of the I Symposium: Island ecosystem, conservation, and molecular Approach, CCBG, Funchal. <a href="https://ifcn.madeira.gov.pt/biodiversidade/projetos/pombo-trocaz.html">https://ifcn.madeira.gov.pt/biodiversidade/projetos/pombo-trocaz.html</a>

# Bibliography

Baptista, L.F., Trail, P.W. and Horblit, H.M. 1997. Madeira Laurel-pigeon (*Columba trocaz*). In: del Hoyo, J., Elliott, A., Sargatal, J., Christie, D.A. and de Juana, E. (eds), *Handbook of the Birds of the World Alive*, Lynx Edicions, Barcelona.

Barov, B and Derhé, M. A. 2011. Madeira Laurel Pigeon *Columba trocaz* species action plan implementation review. In: Barov, B and Derhé, M. A. (eds), *Review of The Implementation Of Species Action Plans for Threatened Birds in the European Union 2004-2010*. Final report. BirdLife International For the European Commission.

Bird, J. P., Martin, R., Akçakaya, H. R., Gilroy, J., Burfield, I. J., Garnett, S. G., Symes, A., Taylor, J., Sekercioglu, Ç. H. and Butchart, S. H. M. 2020. Generation lengths of the world's birds and their implications for extinction risk. *Conservation Biology* 34(5): 1252-1261. DOI: 10.1111/cobi.13486.

Gibbs, D.; Barnes, E.; Cox, J. 2001. *Pigeons and doves: a guide to the pigeons and doves of the world*. Pica Press, Robertsbridge, U.K.

Jones, M. 1988. A survey of the distribution, density and habitat references of the Long-toed Pigeon *Columba trocaz* in Madeira. International Council for Bird Preservation, Cambridge, U.K.

Marrero, P.; Oliveira, P.; Nogales, M. 2004. Diet of the endemic Madeira Laurel Pigeon *Columba trocaz* in agricultural and forest areas: implications for conservation. *Bird Conservation International* 14: 165-172.

Nagy, S.; Crockford, N. 2004. Implementation in the European Union of species action plans for 23 of Europe's most threatened birds. BirdLife International, Wageningen, The Netherlands.

Oliveira, P.; Heredia, B. 1996. Action plan for Madeira Laurel Pigeon (*Columba trocaz*). In: Heredia, B.; Rose, L.; Painter, M. (ed.), *Globally threatened birds in Europe: action plans*, pp. 303-310. Council of Europe and BirdLife International, Strasbourg.

Oliveira, P.; Jones, M.; Caires, D.; Menezes, D. 1999. Population trends and status of the Madeira Laurel Pigeon *Columba trocaz*. *Bird Conservation International* 9: 387-395.

Oliveira, P.; Marrero, P.; Nogales, M. 2002. Diet of the endemic Madeira Laurel Pigeon and fruit resource availability: a study using microhistological analyses. *Condor* 104: 811-822.

Oliveira, P.; Menezes, D.; Jones, M.; Nogales, M. 2006. The influence of fruit abundance on the use of forest and cultivated field habitats by the endemic Madeira Laurel Pigeon *Columba trocaz*: implications for conservation. *Biological Conservation* 130: 538-548.

Oliveira, P.; Menezes, D.; Sepulveda, P. 2007. Population trends of the Madeira laurel pigeon between 1986 and 2006.

Oliveira, P.; Menezes, D.; Sepulveda, P. 2007. Population trends of the Madeira laurel pigeon between 1986 and 2006.

Tucker, G.M. and Heath, M.F. 1994. *Birds in Europe: Their Conservation Status*. BirdLife International, Cambridge, U.K.

Zino, F.; Zino, P. A. 1986. An account of the habitat, feeding habitats, density, breeding and need of protection of the Long-toed Wood Pigeon, *Columba trocaz*. *Bocagiana* 97: 1-16.