

Where am I? > [Home](#) > [News](#) > [Environment](#)

Tags: [amphibians](#), [animal](#), [biodiversity](#), [birds](#), [climate](#), [diversity](#), [habitat](#), [Iberian](#), [mammals](#), [precipitation](#), [reptiles](#), [Spain](#), [species](#)

Climate and habitat diversity affect variety of animal species in Spain

Science Centric | 20 March 2009 12:00 GMT

Cursos Técnicos Granada
Cursos Técnicos En Granada Cursos Con Prácticas y Bolsa Empleo
[www.MasterD.es/Cursos_Granada](#)

50 Hotels in Granada
Book your hotel in Granada online. Find your hotel on a city map!
[www.Booking.com/Granada](#)

CAP - Community Analysis
Analyse ecological data with PCA, TWINSPLAN, MDS, ANOSIM + more
[www.pisces-conservation.com](#)

Global Climate Debate
Voice your opinion before the UN Climate Change Conference 2009
[www.cop15.dk/blogs](#)

V V

Ads by Google

The Iberian Peninsula is one of the richest regions of Europe in terms of animal biodiversity. In this context, Spanish researchers have shown that the variation in terrestrial vertebrate diversity in Spain is influenced above all by climate. In addition to habitat diversity, the study concludes that, when all other factors are taken into consideration, this wealth is higher in the north (Pyrenees) and the south (Straits of Gibraltar), and is relatively less in the centre of the peninsula.

'Climate, human population density, the variety of animal habitat and spatial structure are some of the factors contributing to the distribution and wealth of Spanish amphibians, reptiles, mammals and birds, according to their taxonomic category.' Researchers from the University of Granada (UGR) started out from this premise in order to research the reasons behind the variations in the wealth of vertebrate species in Spain, where there are, on average, 98 species per 100 sq. km.

Although the scientists thought that habitat variation was the main determining factor of biodiversity, their study, published in the latest issue of Ecological Research, shows that other factors impact on the variety of animal species.

The wealth of terrestrial vertebrates in Spain is primarily determined by climate. 'Precipitation favours the high variety of bird and mammal species, while temperature does the same for amphibians and reptiles,' Gregorio Moreno-Rueda, lead author of the study and a researcher at the UGR's Department of Animal Biology, tells SINC.

This means that more species were found in places with higher recorded levels of precipitation. According to Moreno-Rueda 'annual precipitation is probably the most important factor in determining the number of bird and mammal species in Spain.'

The research study also shows that the disparity of habitats within a single area where various species, each belonging to different habitats, coexist increases biodiversity. Despite all the studies that have attributed the wealth of Spanish species to habitat availability, 'the relative importance of habitat diversity is less than that of climate' in the Iberian Peninsula, according to the researcher. The research team places greater importance on the diversity of habitats at local level, as also indicated by other studies.

'Human beings tend to establish themselves in areas of high primary production, which is where the diversity of animal species is also at its highest,' points out the biologist. This is the reason for conflict between the human population and the environment, because birds and mammals prefer to live in the same areas chosen by humans.

Some areas planted to crops, which are more densely populated and highly productive, still have - despite their degraded landscapes - 'great environmental value, although this is rarely taken into account by public administrations,' claims Moreno-Rueda.

The number of animal species rises still further in the south (Straits of Gibraltar) and the north (Pyrenees). The researcher explains that this phenomenon 'could be due to the flow of species coming from the rest of Europe and the north of Africa, which would increase the variety of species near the Pyrenean isthmus (passeriform birds) and the Straits of Gibraltar (amphibians and reptiles), respectively.'



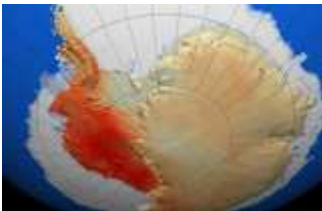
DON'T MISS —



[Bioremediation to keep atrazine from waterways](#) — [17 Feb] — Farmers around the world are expected to benefit from the successful trial of an enzyme that breaks down the herbicide, atrazine,...



[Keeping cool using the summer heat](#) — [23 Jan] — While most Australians are taking care to shield themselves from the harsh summer heat, scientists from the CSIRO Energy...



[New data show much of Antarctica is warming more than previously thought](#) — [22 Jan] — Scientists studying climate change have long believed that while most of the rest of the globe has been getting steadily...



[What is powering your Christmas lights?](#) — [23 Dec] — From Santa's cave to the neon-lit streetscapes of Australian suburbia, the dazzle of Christmas lights heralds the arrival...

More [Environment](#)...



— [Advertise here](#)

LATEST	MOST E-MAILED	ARCHIVE
--------	---------------	---------

- Postal stamp for the 120 anniversary of the NMNHS
- Education slowing AIDS in sub-Saharan Africa
- Hearts of galaxies close in for cosmic train wreck
- Mars Express zeroes in on erosion features
- Finding twin Earths: Harder than we thought!
- Galactic dust bunnies found to contain carbon after all
- Nanoscopic probes can track down and attack cancer cells
- Industry no threat to WA's Burrup rock art
- Water declaration vague on main issues
- Naltrexone can help heavy social drinkers quit smoking

- [More](#) recent stories...
- Cumulative radiation exposure shows increased cancer risk for emergency department patients
- Dye-coated glass to channel energy into solar cells
- Intestinal bacteria promote - and prevent! - inflammatory bowel disease
- Unravelling the roots of dyslexia
- Scientists discover how rheumatoid arthritis causes bone loss
- The upside to allergies: Cancer prevention
- Protein on 'speed' linked to ADHD
- Study links seismic slip and tremor, with implications for subduction zone
- Native lizards evolve to escape attacks by fire ants
- Fish scales show ocean fate of Atlantic salmon
- 2007 — [II](#) [III](#) [IV](#) [V](#) [VI](#) [VII](#) [VIII](#) [IX](#) [X](#) [XI](#) [XII](#)
- 2008 — [I](#) [II](#) [III](#) [IV](#) [V](#) [VI](#) [VII](#) [VIII](#) [IX](#) [X](#) [XI](#) [XII](#)
- 2009 — [I](#) [II](#) [III](#)

For the researchers, understanding the patterns of species variety and the relationships between environmental and geographical factors is of paramount importance in order to define the key places in which to set up conservation areas.

In addition, not all reserves for species conservation should be in remote areas. In this sense, reserves for amphibians and reptiles should be located in the hotter parts of Spain, preferably in rural areas.

Source: [Plataforma SINC](#)

Cursos Técnicos Granada
Cursos Técnicos En Granada Cursos Con
Prácticas y Bolsa Empleo
www.MasterD.es/Cursos_Granada

50 Hotels in Granada
Book your hotel in Granada online. Find
your hotel on a city map!
www.Booking.com/Granada

VV

Ads by Google

Google Custom Search

Science Centric — Science, health and technology, breaking news
[Front page](#) | [News](#) | [Travel](#) | [Art & style](#) | [Compendium](#) | [SC Blog](#) | [Resources](#) | [Site map](#) | [Accessibility](#) | [About us](#) | [Contact us](#) | [RSS feeds](#)

Copyright © 2007— 2009 Agency Science.
Science Centric delivers breaking news about the latest scientific discoveries in the fields of physics, chemistry, geology and palaeontology, biology, environment, astronomy, health, and technology. Use of this website assumes acceptance of [Terms of use](#) and [Privacy policy](#).

[Agency Science](#) network — [Science Shots](#) · [Lepidopterology](#)