

Resource Summary Report

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PaleoClim database

RRID:SCR_025657

Type: Tool

Proper Citation

PaleoClim database (RRID:SCR_025657)

Resource Information

URL: <http://www.paleoclim.org/>

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Description: Database of downscaled paleoclimate outputs at 2.5 minute resolution (~5 km at equator) that includes surface temperature and precipitation estimates from snapshot-style climate model simulations using HadCM3, a version of the UK Met Office Hadley Centre General Circulation Model. Database contains climatic data for three key time periods spanning from 3.3 to 0.787 million years ago: the Marine Isotope Stage 19 (MIS19) in the Pleistocene (~787 ka), the mid-Pliocene Warm Period (~3.264–3.025 Ma), and MIS M2 in the Late Pliocene (~3.3 Ma). Set of historical climate layers (climate grids) with spatial resolution of about 2.5 min. These data can be used for mapping and spatial modelling in Geographic Information Systems (GIS) or other computer programs.

Synonyms: Paleoclim

Resource Type: data or information resource, database

Defining Citation: [PMID:30422125](#)

Keywords: historical climate layers, climate grids, paleoclimate outputs, 2.5 minute resolution, surface temperature, precipitation estimates, climate model simulations, climatic data,

Funding: European Research Council ;
National Aeronautics and Space Administration ;
NSF ;
São Paulo State Research Foundation ;
Southern Illinois University ;
University of Leeds International Research Collaboration Award

Availability: Free, Freely available

Resource Name: PaleoClim database

Resource ID: SCR_025657

Record Creation Time: 20240827T053245+0000

Record Last Update: 20260919T200031+0000

Ratings and Alerts

No rating or validation information has been found for PaleoClim database.

No alerts have been found for PaleoClim database.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 28 mentions in open access literature.

Listed below are recent publications. The full list is available at [NIF](#) .

Wang N, et al. (2026) Biogeography and Climate Drive Population Divergence and Genomic Vulnerability in High Altitude Endemic Bird. *Molecular ecology*, 35(4), e70274.

Monge-Castro EA, et al. (2026) From genomics to domestication: biocultural history of the Neotropical palms *Acrocomia aculeata* and *Acrocomia totai*. *Annals of botany*, 137(3), 725.

Chen L, et al. (2026) Ensemble Modeling Reveals Threats to Pollination Services From Asynchronous Range Shifts Between *Camellia oleifera* and Its Specialized Wild Bee Pollinators. *Ecology and evolution*, 16(6), e73714.

Song H, et al. (2026) The relative role of regional species pools in determining tree species richness and rarity in Chinese subtropical and tropical forests. *Plant diversity*, 48(2), 340.

Hinckley A, et al. (2025) Pliocene Forest Fragmentation Shaped Speciation in Tropical Asia's Giant Squirrels (*Ratufa*). *Molecular ecology*, 34(24), e70179.

Siddiqui S, et al. (2025) Global patterns and drivers of species and genera richness of Fabaceae. *Frontiers in plant science*, 16, 1581814.

Ma W, et al. (2025) Genetic structure and local adaptation of *Nitraria sphaerocarpa* populations from arid northwestern China. *Frontiers in plant science*, 16, 1623235.

Shin Y, et al. (2025) Climatic data sources and limitations of ecological niche models impact the estimations of historical ranges and niche overlaps in distantly related Korean

salamanders. BMC ecology and evolution, 25(1), 105.

Zhang Z, et al. (2025) Drivers of intraspecific genetic differentiation of a wheat's wild relative *Leymus racemosus*: roles of isolation by distance and environmental factors. Frontiers in plant science, 16, 1675027.

Burbrink FT, et al. (2025) The genetic origins of species boundaries at subtropical and temperate ecoregions in the North American racers (*Coluber constrictor*). Heredity, 134(2), 87.

Trivedi M, et al. (2025) Historical Demography and Species Distribution Models Shed Light on Speciation in Primates of Northeast India. Ecology and evolution, 15(2), e70968.

Zhao T, et al. (2025) Evaluation of forage production performance and prediction of introduction adaptability for different *Avena sativa* germplasms in the southeast edge of the Qinghai-Tibet plateau. Frontiers in plant science, 16, 1564278.

Tan C, et al. (2025) Distribution and Conservation of *Ephedra rhytidosperma*. Ecology and evolution, 15(1), e70762.

García-Rodríguez A, et al. (2025) The latitudinal variation in amphibian speciation rates revisited. Communications biology, 8(1), 822.

Wang S, et al. (2025) Convergent evolution in angiosperms adapted to cold climates. Plant communications, 6(2), 101258.

Li F, et al. (2025) Genomics reveal population structure, genetic diversity and evolutionary history of *Phyllostachys edulis* (moso bamboo) in global natural distribution. Frontiers in plant science, 16, 1532058.

de Moraes Magaldi L, et al. (2024) Montane diversification as a mechanism of speciation in neotropical butterflies. Ecology and evolution, 14(7), e11704.

Feng H, et al. (2024) Origin and evolution of a new tetraploid mangrove species in an intertidal zone. Plant diversity, 46(4), 476.

Poudel A, et al. (2024) Predicting the Invasion Risk of the Highly Invasive *Acacia mearnsii* in Asia under Global Climate Change. Plants (Basel, Switzerland), 13(20).

Zhao C, et al. (2024) The Role of Polyploidy in the Genetic Structure and Expansion of *Lepisorus clathratus* in the Qinghai-Tibetan Plateau and Hengduan Mountains. Plants (Basel, Switzerland), 13(22).