Resource Summary Report

Generated by dkNET on Aug 20, 2026

Natural Scenes Dataset

RRID:SCR_023648
Type: Tool

Proper Citation

Natural Scenes Dataset (RRID:SCR_023648)

Resource Information

URL: http://naturalscenesdataset.org/

Proper Citation: Natural Scenes Dataset (RRID:SCR_023648)

Description: Portal for large scale fMRI dataset conducted at ultra high field strength at Center of Magnetic Resonance Research at University of Minnesota. Dataset consists of whole brain, high resolution fMRI measurements of healthy adult subjects while they viewed thousands of color natural scenes over course of scan sessions. While viewing these images, subjects were engaged in continuous recognition task in which they reported whether they had seen each given image at any point in experiment. These data constitute massive benchmark dataset for computational models of visual representation and cognition, and can support wide range of scientific inquiry.

Abbreviations: NSD

Resource Type: data or information resource, portal, topical portal, data set

Defining Citation: PMID:34916659

Keywords: Natural scenes, vision, fMRI measurements, fMRI dataset, whole brain, healthy adult subjects, images, visual representation and cognition, benchmark, training data

Availability: Free,Freely available

Resource Name: Natural Scenes Dataset

Resource ID: SCR_023648

Alternate URLs: https://github.com/cvnlab/nsdcode/

Record Creation Time: 20230606T050221+0000

Record Last Update: 20260819T044558+0000

Ratings and Alerts

No rating or validation information has been found for Natural Scenes Dataset.

No alerts have been found for Natural Scenes Dataset.

Data and Source Information

Source: SciCrunch Registry

Usage and Citation Metrics

We found 44 mentions in open access literature.

Listed below are recent publications. The full list is available at dkNET .

Simkova KM, et al. (2026) Representations in vision and language converge in a shared, multidimensional space of perceived similarities. Journal of vision, 26(5), 7.

Kneeland R, et al. (2026) MIRAGE: Robust multi-modal architectures translate fMRI-to-image models from vision to mental imagery. PLoS computational biology, 22(5), e1014263.

St-Laurent M, et al. (2026) CNeuroMod-THINGS, a densely-sampled fMRI dataset for visual neuroscience. Scientific data, 13(1), 141.

Yang Y, et al. (2026) Sensory encoding and memory retrieval are coordinated with propagating waves in the human brain. Nature communications, 17(1).

Gifford AT, et al. (2026) A 7T fMRI dataset of synthetic images for out-of-distribution modeling of vision. Nature communications, 17(1), 1589.

Ladwig Z, et al. (2026) Precision fMRI reveals densely interdigitated network patches with conserved motifs in the lateral prefrontal cortex. Neuron.

Pennock IML, et al. (2026) The colors of images preferred by individual voxels can be used to delineate functionally distinct visually responsive brain areas. Proceedings of the National Academy of Sciences of the United States of America, 123(15), e2535986123.

Qian X, et al. (2026) Local lateral connectivity is sufficient for replicating cortex-like topographical organization in deep neural networks. Nature communications, 17(1).

Kwon YH, et al. (2025) Situating the salience and parietal memory networks in the context of multiple parallel distributed networks using precision functional mapping. Cell reports, 44(1), 115207.

Zou F, et al. (2025) Benefits of spaced learning are predicted by the re-encoding of past experience in ventromedial prefrontal cortex. Cell reports, 44(2), 115232.

Ha J, et al. (2025) Spatial Frequency Maps in Human Visual Cortex: A Replication and Extension. bioRxiv : the preprint server for biology.

Ye Z, et al. (2025) Temporal asymmetry of neural pattern similarity predicts recognition memory decisions. Communications biology, 8(1), 1138.

Guest DR, et al. (2025) Processing of natural scenes in the human pulvinar. Nature communications, 17(1), 789.

Ferrante M, et al. (2025) Evidence for compositionality in fMRI visual representations via Brain Algebra. Communications biology, 8(1), 1263.

Gifford AT, et al. (2025) In silico discovery of representational relationships across visual cortex. Nature human behaviour, 9(10), 2079.

Zou F, et al. (2025) Hippocampal-guided reconstruction of an event's prior temporal context. bioRxiv : the preprint server for biology.

Gauthaman RM, et al. (2025) Universal scale-free representations in human visual cortex. PLoS computational biology, 21(11), e1013714.

Takeda K, et al. (2025) Unsupervised alignment reveals structural commonalities and differences in neural representations of natural scenes across individuals and brain areas. iScience, 28(5), 112427.

Kay K, et al. (2025) Disentangling signal and noise in neural responses through generative modeling. PLoS computational biology, 21(7), e1012092.

Roy TS, et al. (2025) A transformation from vision to imagery in the human brain. bioRxiv : the preprint server for biology.