

Resource Summary Report

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SEED

RRID:SCR_002129

Type: Tool

Proper Citation

SEED (RRID:SCR_002129)

Resource Information

URL: http://www.theseed.org/wiki/Home_of_the_SEED

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Description: The SEED is a framework to support comparative analysis and annotation of genomes. The cooperative effort focuses on the development of the comparative genomics environment and, more importantly, on the development of curated genomic data. Curation of genomic data (annotation) is done via the curation of subsystems by an expert annotator across many genomes, not on a gene by gene basis. From the curated subsystems we extract a set of freely available protein families (FIGfams). These FIGfams form the core component of our RAST automated annotation technology. Answering numerous requests for automatic Seed-Quality annotations for more or less complete bacterial and archaeal genomes, we have established the free RAST-Server (RAST=Rapid Annotation using Subsystems Technology). Using similar technology, we make the Metagenomics-RAST-Server freely available. We also provide a SEED-Viewer that allows read-only access to the latest curated data sets. We currently have 58 Archaea, 902 Bacteria, 562 Eukaryota, 1254 Plasmids and 1713 Viruses in our database. All tools and datasets that make up the SEED are in the public domain and can be downloaded at <ftp://ftp.theseed.org>

Abbreviations: SEED

Synonyms: The SEED

Resource Type: data analysis service, data or information resource, database, service resource, data set, production service resource, analysis service resource

Defining Citation: [PMID:16214803](#)

Keywords: environmental genome, eukaryal, archaeal, bacterial, viral, FASEB list

Availability: Free, Freely Available

Resource Name: SEED

Resource ID: SCR_002129

Alternate IDs: nif-0000-20923

Alternate URLs: http://www.theseed.org/wiki/Main_Page

Record Creation Time: 20220129T080211+0000

Record Last Update: 20260801T190729+0000

Ratings and Alerts

No rating or validation information has been found for SEED.

No alerts have been found for SEED.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 497 mentions in open access literature.

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

Martedì R, et al. (2026) De novo cysteine biosynthesis in *Pseudomonas aeruginosa*: Characterization of the two main cysteine synthase isoforms. *iScience*, 29(1), 114304.

Mašková Z, et al. (2025) *Hermetia illucens* in the Process of Kitchen Waste Biodegradation: The Effect of Different Approaches to Waste Storage on the Microbiological Profile and Nutritional Parameters of the Larvae. *Insects*, 16(1).

Kambach S, et al. (2025) Putting seedlings on the map: Trade-offs in demographic rates between ontogenetic size classes in five tropical forests. *Ecology*, 106(1), e4527.

Nagy B, et al. (2025) Effects of light exposure during IVF: transcriptomic analysis of murine embryos and embryo-derived EVs. *Frontiers in immunology*, 16, 1429252.

Howerton EM, et al. (2025) An epigenome-wide association study in the case-control study to explore early development identifies differential DNA methylation near ZFP57 as associated with autistic traits. *Journal of neurodevelopmental disorders*, 17(1), 49.

Thomsen T, et al. (2025) Arctic Soil C and N Cycling Are Linked With Microbial Adaptations During Drought. *Global change biology*, 31(9), e70502.

Togo E, et al. (2025) The thought that i could continue with school got lost: a qualitative exploration of the impact of COVID-19 on the education and sexual and reproductive health of Malawi youth. *Reproductive health*, 22(1), 33.

- Ren M, et al. (2025) Biogeography of soda lake microbiome and uneven cross-continent transition rates. *Frontiers in microbiology*, 16, 1614302.
- Joos L, et al. (2025) Year-long, multiple-timepoint field studies show the importance of spatiotemporal dynamics and microbial functions in agricultural soil microbiomes. *mSystems*, 10(7), e0011225.
- Arzamasov AA, et al. (2025) Integrative genomic reconstruction reveals heterogeneity in carbohydrate utilization across human gut bifidobacteria. *Nature microbiology*, 10(8), 2031.
- Wallbank JA, et al. (2025) Plastic Type and Condition Have Minimal Impact on Associated Marine Biofilm Communities. *Environmental microbiology*, 27(12), e70214.
- Zhou X, et al. (2025) Time-series metatranscriptomics reveals differential salinity effects on the methanogenic food web in paddy soil. *mSystems*, 10(8), e0001725.
- Ghignoli S, et al. (2025) Spatiotemporal Analysis of Glucagon Secretory Granule Dynamics. *Traffic (Copenhagen, Denmark)*, 26(7-9), e70019.
- Das BK, et al. (2025) Exploring microbial players for metagenomic profiling of carbon cycling bacteria in sundarban mangrove soils. *Scientific reports*, 15(1), 4784.
- Dai W, et al. (2025) Metagenomic Insights into Pigeon Gut Microbiota Characteristics and Antibiotic-Resistant Genes. *Biology*, 14(1).
- Baer J, et al. (2025) Viralization as a microbial approach for enhancing coral reef restoration. *The ISME journal*, 19(1).
- Islam M, et al. (2025) An automated extraction of spectral-temporal and spatial-temporal features of EEG for emotion detection. *Brain informatics*, 12(1), 19.
- Xu X, et al. (2025) A Multi-Context Emotional EEG Dataset for Cross-Context Emotion Decoding. *Scientific data*, 12(1), 1142.
- Mooney K, et al. (2025) Optimising Psychosocial Interventions for People With Severe and Enduring Eating Disorders (SEED) Perspectives of Healthcare Professionals in Ireland: A Qualitative Study. *International journal of mental health nursing*, 34(2), e70037.
- Moravcová A, et al. (2025) Contrasting stability of fungal and bacterial communities during long-term decomposition of fungal necromass in Arctic tundra. *Environmental microbiome*, 20(1), 75.