

Resource Summary Report

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PICRUSt

RRID:SCR_016855

Type: Tool

Proper Citation

PICRUSt (RRID:SCR_016855)

Resource Information

URL: <https://picrust.github.io/picrust/>

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Description: Software package to predict metagenome functional content from marker gene (e.g., 16S rRNA) surveys and full genomes. Used to predict which gene families are present and then combines gene families to estimate the composite metagenome.

Abbreviations: PICRUSt

Synonyms: Phylogenetic Investigation of Communities by Reconstruction of Unobserved States, PICRUSt

Resource Type: simulation software, software application, software resource

Defining Citation: [PMID:23975157](#)

Keywords: predict, metagenome, functional, content, DNA, sample, marker, gene, sequence, data, microbiome, 16S, RNA

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Canada Research Chairs program ;
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Availability: Free, Available for download, Freely available

Resource Name: PICRUS_t

Resource ID: SCR_016855

Alternate IDs: SCR_016856

License: GNU GPL v3

Record Creation Time: 20220129T080332+0000

Record Last Update: 20260905T132814+0000

Ratings and Alerts

No rating or validation information has been found for PICRUS_t.

No alerts have been found for PICRUS_t.

Data and Source Information

Source: [SciCrunch Registry](#)

Usage and Citation Metrics

We found 45 mentions in open access literature.

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

Li Z, et al. (2026) The impact of polystyrene nanoplastics on the chicken gut and liver: Based on transcriptomics and microbiomics. Poultry science, 105(5), 106574.

Mulisa G, et al. (2026) Multi-cohort comparative analysis of salivary microbiotas reveals rural Ethiopians harbor a distinct composition correlated with lower esophageal cancer prevalence. mSystems, 11(6), e0023226.

Mioduchowska M, et al. (2026) "Let's Dry up and Survive Together": Is Anhydrobiosis in Two Paramacrobiotus Species (Tardigrada) Associated with a Specific Microbiome Community? International journal of molecular sciences, 27(12).

Huang Z, et al. (2025) Composition of the Gut Microbiome and Its Response to Rice Stripe Virus Infection in Laodelphax striatellus (Hemiptera: Delphacidae). Insects, 16(11).

Yang YT, et al. (2025) Optimization, application effects and improved microecology of a composite microbial agent containing oyster shells. Scientific reports, 15(1), 6922.

Pascual-García A, et al. (2025) Replicating community dynamics reveals how initial composition shapes the functional outcomes of bacterial communities. Nature communications, 16(1), 3002.

Carrion JV, et al. (2025) Functional Specialisation and Diversity Shape the Rhizosphere Microbiota of Cacao and Coffee in the Amazonas Region, Peru. Environmental

microbiology reports, 17(6), e70259.

Dendooven L, et al. (2025) Young maize plants impact the bacterial community in Australian cotton-sown vertisol more than agricultural practices. Environmental microbiology reports, 17(3), e13322.

Kim CW, et al. (2025) Gut dysbiosis from high-salt diet promotes glioma via propionate-mediated TGF- β activation. The Journal of experimental medicine, 222(8).

Yan Y, et al. (2024) Gut microbiota-derived cholic acid mediates neonatal brain immaturity and white matter injury under chronic hypoxia. iScience, 27(5), 109633.

Zheng Y, et al. (2024) Structure and Function of Soil Bacterial Communities in the Different Wetland Types of the Liaohe Estuary Wetland. Microorganisms, 12(10).

Kumari A, et al. (2024) Substantially altered bacterial diversity associated with developmental stages of litchi stink bug, *Tessaratoma javanica* (Thunberg) (Hemiptera: Tessaratomidae). Heliyon, 10(11), e32384.

Ling Z, et al. (2024) Altered gut microbiota and systemic immunity in Chinese patients with schizophrenia comorbid with metabolic syndrome. Journal of translational medicine, 22(1), 729.

Qi D, et al. (2024) Unveiling the gut microbiota blueprint of schizophrenia: a multilevel omics approach. Frontiers in psychiatry, 15, 1452604.

Wang Y, et al. (2024) Perturbations in gut microbiota composition in schizophrenia. PloS one, 19(7), e0306582.

Lovecchio N, et al. (2024) Hydrocarbonoclastic Biofilm-Based Microbial Fuel Cells: Exploiting Biofilms at Water-Oil Interface for Renewable Energy and Wastewater Remediation. Biosensors, 14(10).

Zhen J, et al. (2024) Shaoyao Decoction reduced T lymphocyte activation by regulating of intestinal flora and 5-hydroxytryptamine metabolism in ulcerative colitis. Chinese medicine, 19(1), 87.

Sun C, et al. (2024) Harnessing biosynthesized selenium nanoparticles for recruitment of beneficial soil microbes to plant roots. Cell host & microbe, 32(12), 2148.

Deng F, et al. (2023) Gut microbe-derived milnacipran enhances tolerance to gut ischemia/reperfusion injury. Cell reports. Medicine, 4(3), 100979.

Zhou YJ, et al. (2023) Gut microbial profile of treatment-naive patients with primary biliary cholangitis. Frontiers in immunology, 14, 1126117.