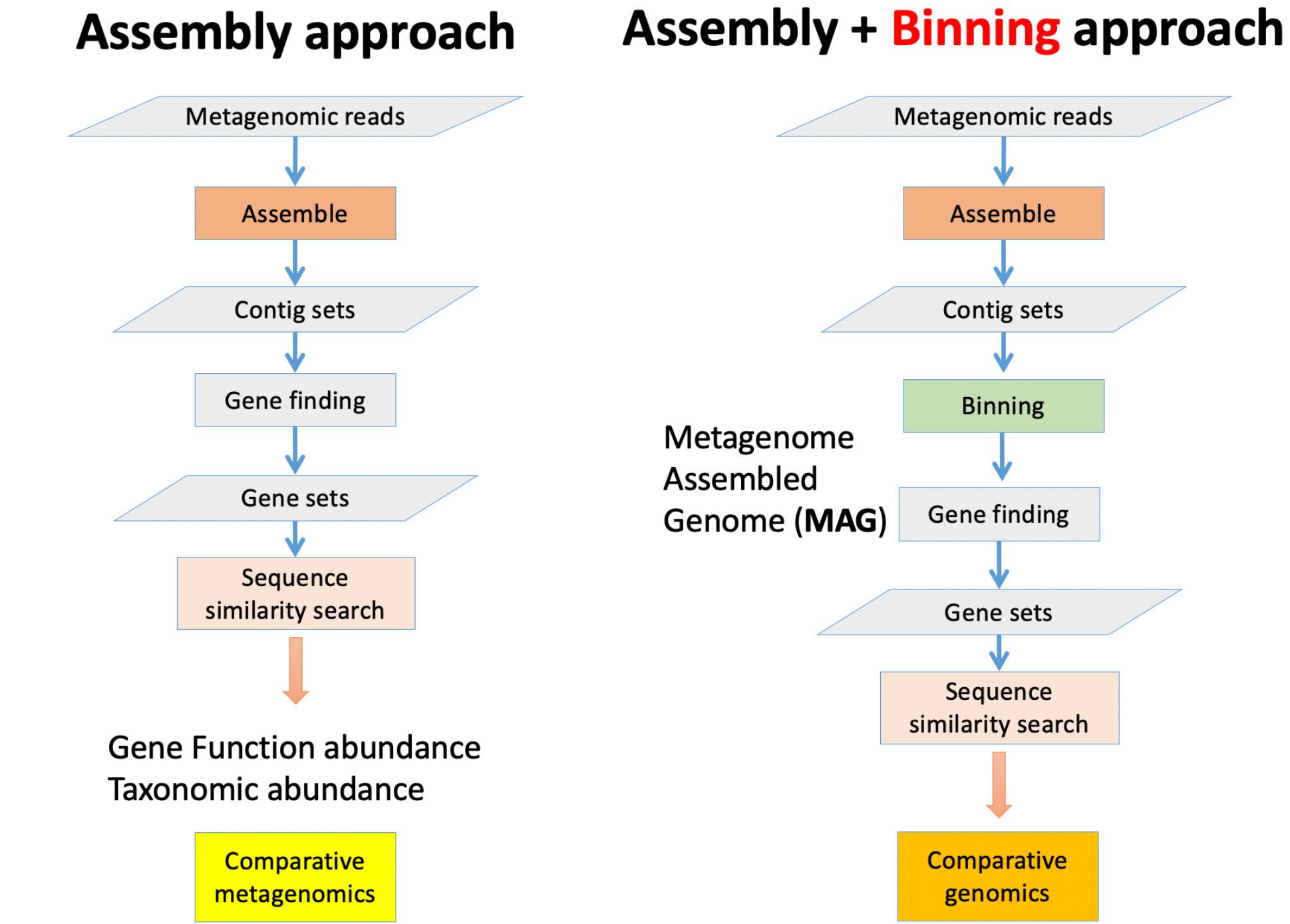


Microbiome Datahub における MAG データと環境情報

○Hiroshi Mori (NIG), Takatomo Fujisawa (NIG), Koichi Higashi (NIG), Yasuhiro Tanizawa (NIG), Zennichi Nakagawa (Science Tokyo), Hiroyo Nishide (NIBB), Yasukazu Nakamura (NIG), Takuji Yamada (Science Tokyo), Motomu Matsui (Kyoto University), Ikuo Uchiyama (NIBB)

Microbiome Datahub (<https://mdatahub.org>)

Metagenome analysis strategy

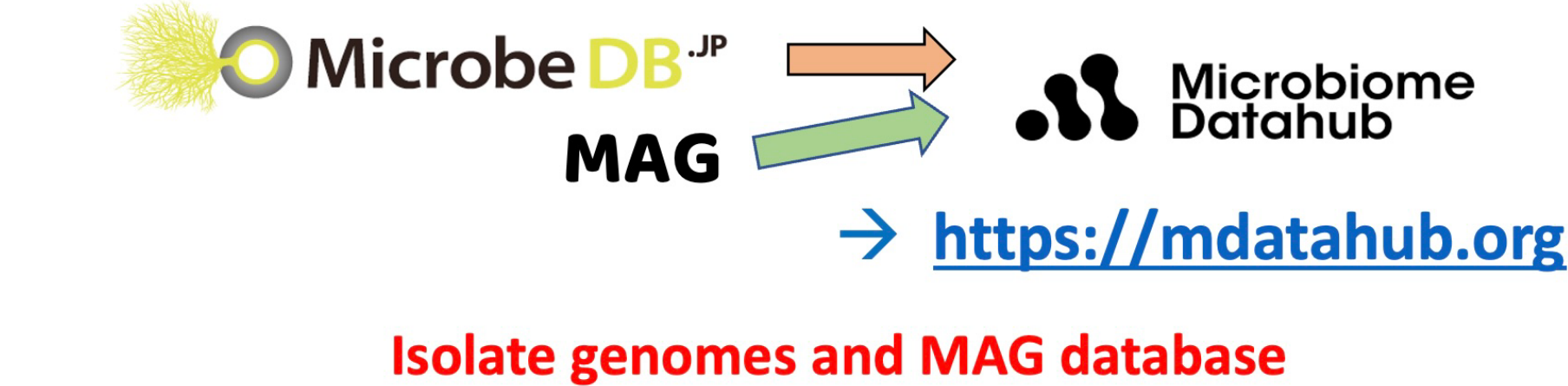


In July 2025

Taxonomic rank	Cultured and validly described taxa	Genome-based putative taxa including uncultured taxa
Phylum	46	189
Class	110	634
Order	245	2,147
Family	628	5,914
Genus	3,869	29,405
Species	21,239	143,614

List of prokaryotic names with standing in nomenclature (<https://lpsn.dsmz.de/text/numbers>)
Genome Taxonomy Database R226 (<https://gtdb.ecogenomic.org/stats>)

JST-NBDC DCP (Database Integration Coordination Program)



Microbiome Datahub project member

NIG (国立遺伝学研究所)
Hiroshi Mori, Takatomo Fujisawa, Koichi Higashi, Yasuhiro Tanizawa, Yasukazu Nakamura

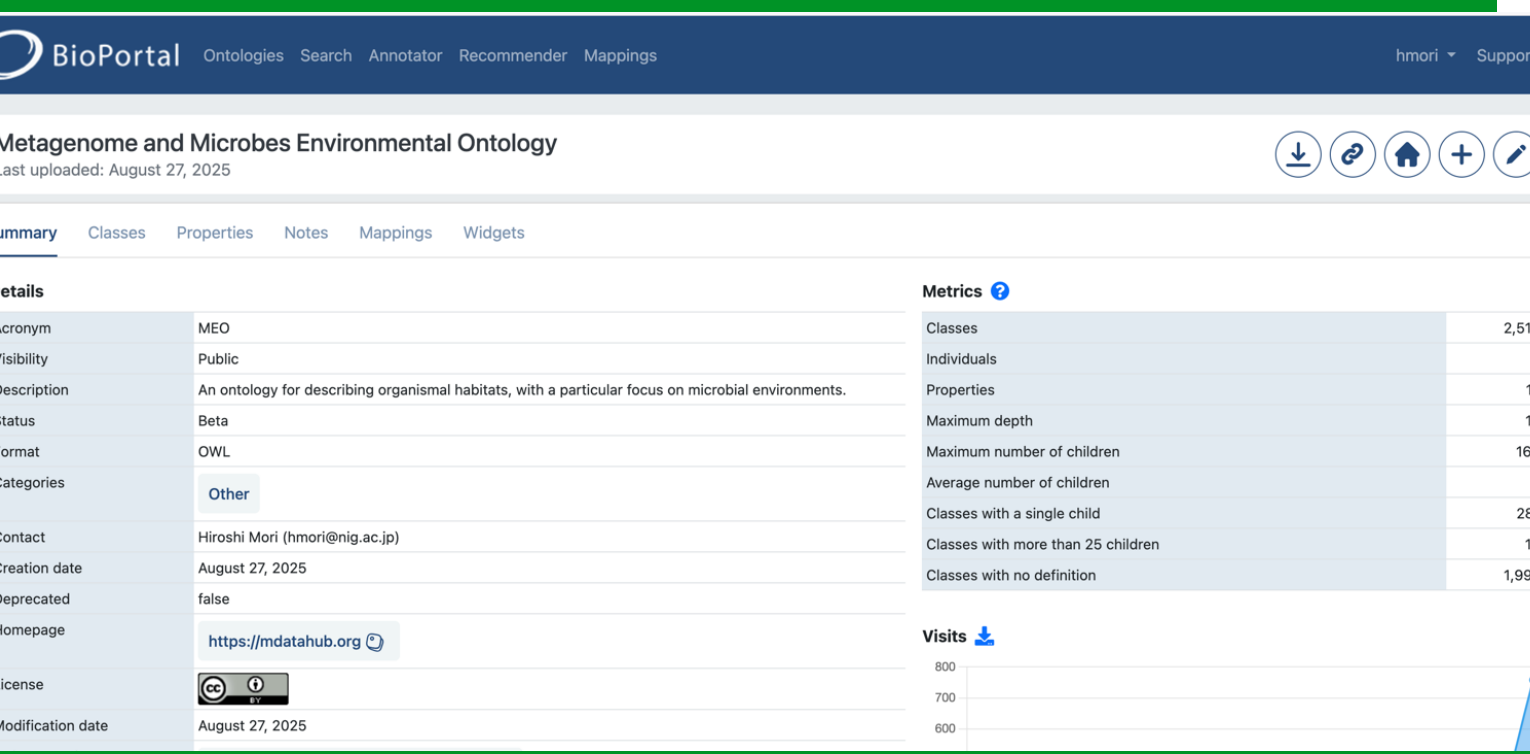
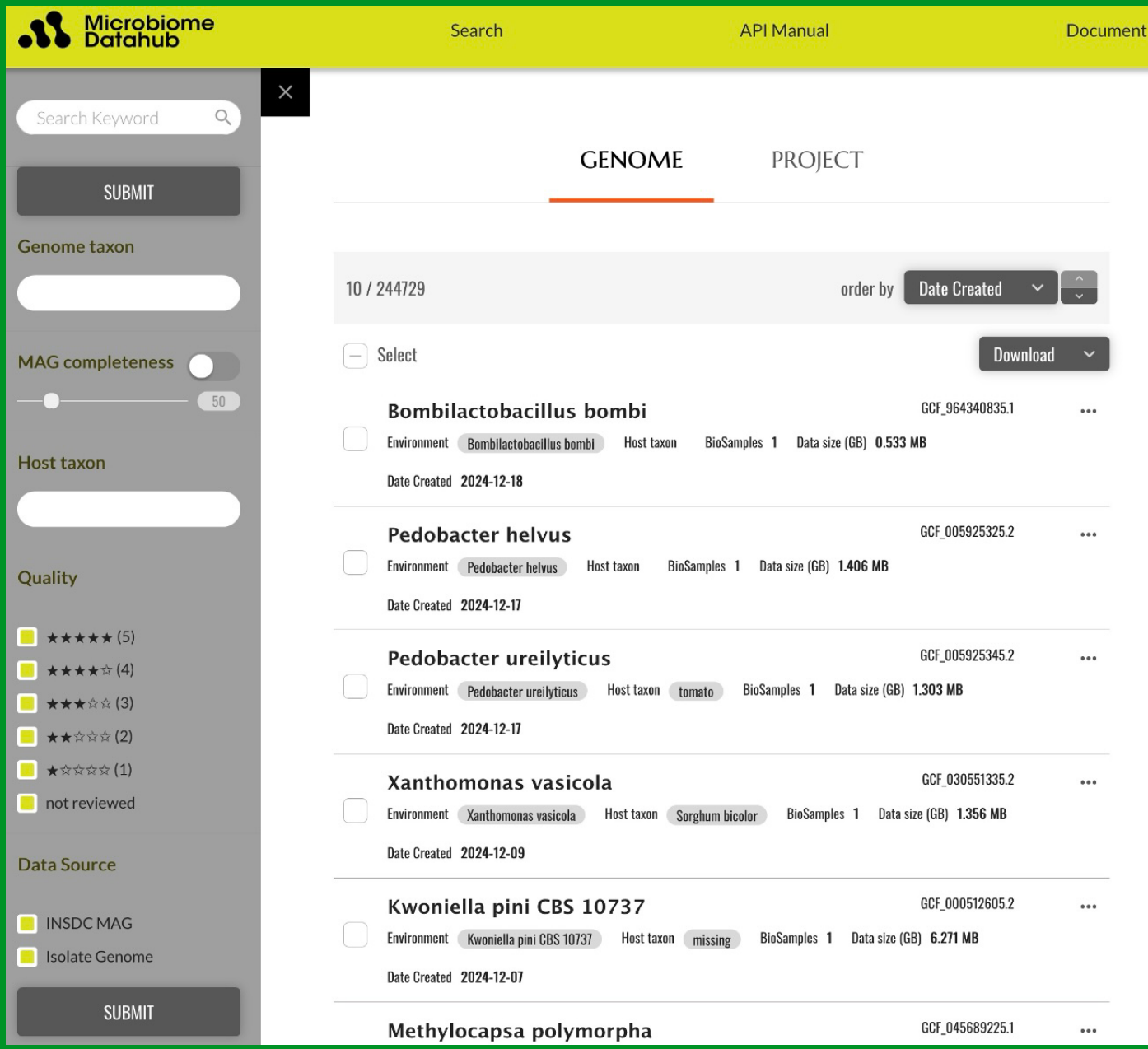
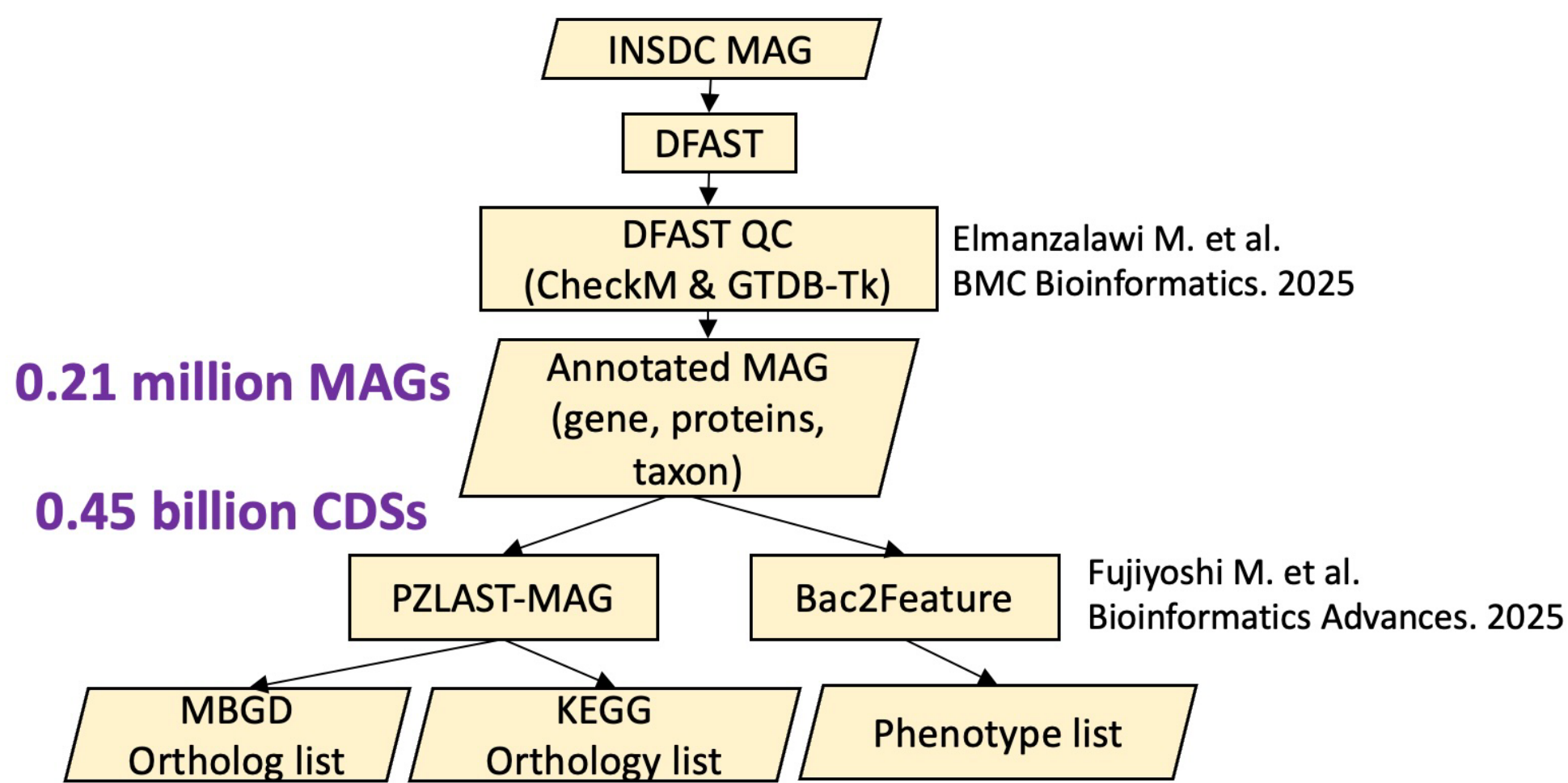
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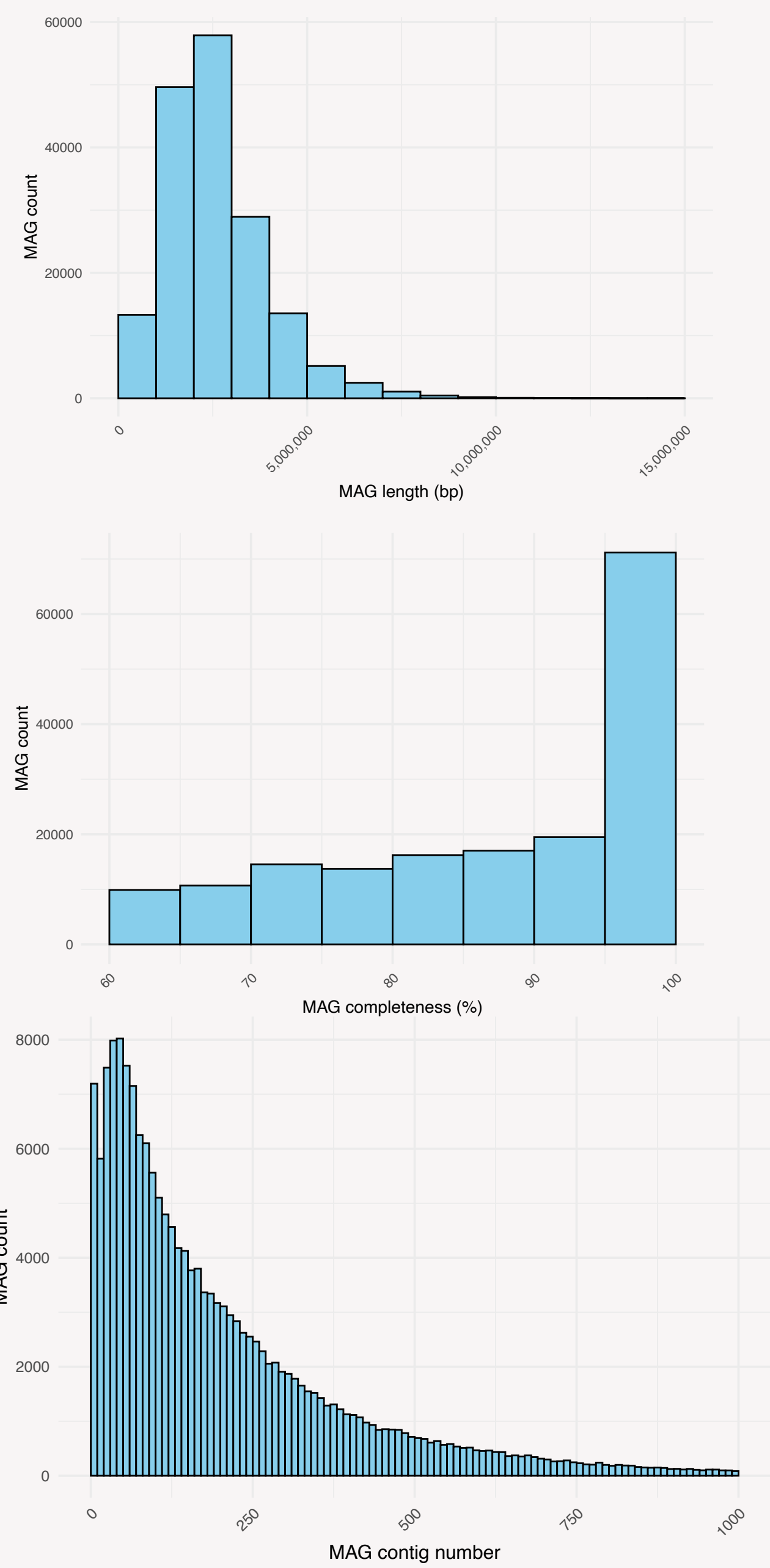
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JST 国立研究開発法人 科学技術振興機構 NBDC 統合化推進プログラム

MAG re-annotation in Microbiome Datahub



Microbiome Datahub MAG stats (Mori et al. submitted)



代表的な MAG DB の統計量比較

	Microbiome Datahub	MGnify	IMG/M	SPIRE
Number of MAGs	214,427	507,233	288,496	1,158,553
Number of environments	92	15	170	111
Number of phylum	213	144	190	182
Number of proteins	454,799,346	2,455,939,992	N.A.	2,452,036,556
Total nucleotides	533,632,659,876	1,251,168,593,554	N.A.	2,627,577,000,000
Number of projects	1,759	5,164	1,733	739
Average completeness	80.59	85.62	79.62	81
Average contamination	1.83	1.15	1.78	1.77
Average MAGs per project	121.9	98.2	166.4	1567.7

MAG タンパク質への配列類似性検索

