From coral reefs into the abyss: the evolution of corallivory in the Coralliophilinae (Neogastropoda, Muricidae)

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Supporting Information

Figure S1: ASAP analysis of the COI dataset. Upper left, ASAP ten best partitions; upper central, ASAP ranked genetic distances; upper right, ASAP histogram of genetic distances; down left, voucher numbers; down right, the ten best partition identified by ASAP (each box correspond to one hypothetical species, the number of specimens included in each group is reported at the top of the box). On the top for each partition is reported the total number of hypothetical species found “Nb groups” and the ASAP score “Score”. “W” = Relative Barcode Gap Width.

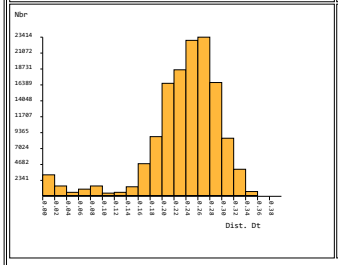
ASAP Results

The lower the score, the better the partition

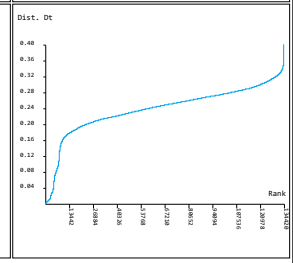
Nb of subsets	asap-score		P-val (rank)	W (rank)	Treshold dist.	Text
67	5.50		1.32e-03 (2)	4.89e-05 (9)	0.120692	list csv
71	6.00		2.55e-01 (7)	5.33e-05 (5)	0.116113	list csv
* 118	12.50		5.21e-01 (11)	4.76e-05 (14)	0.039740	list csv
* 111	13.00		6.01e-01 (16)	4.87e-05 (10)	0.044442	list csv
* 117	13.00		7.57e-01 (22)	5.60e-05 (4)	0.040439	list csv
* 115	17.50		9.02e-01 (32)	5.98e-05 (3)	0.041254	list csv
75	19.50		6.69e-01 (19)	4.71e-05 (20)	0.112212	list csv
104	20.00		2.08e-01 (5)	3.31e-05 (35)	0.055829	list csv
79	21.00		6.31e-01 (17)	3.79e-05 (25)	0.108059	list csv
* 109	22.50		7.50e-01 (21)	3.81e-05 (24)	0.047667	list csv

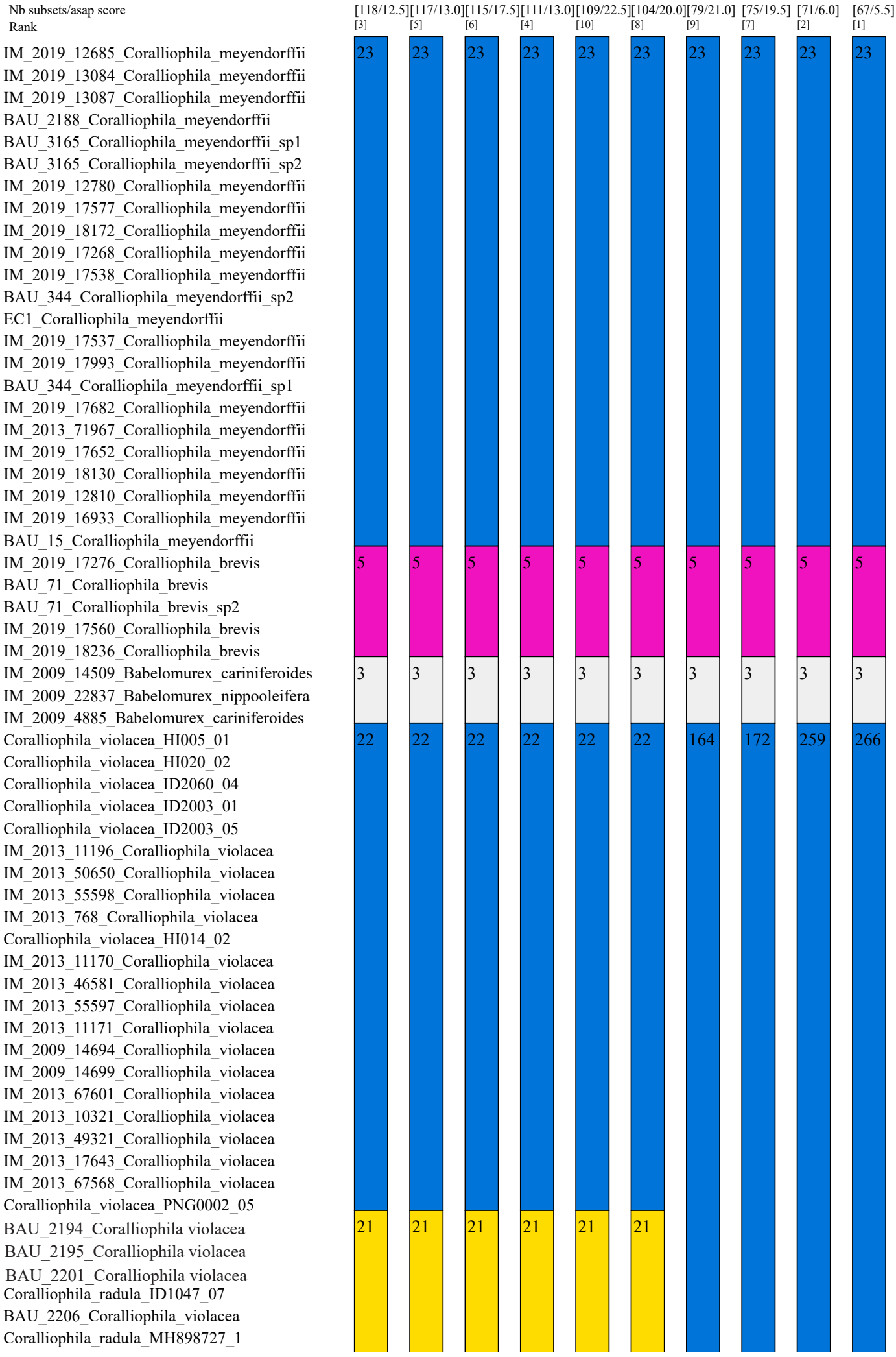
Number of subsets in this table equals to the number of primary species hypotheses in the respective partition

Histogram of distances [save]



Ranked distances [save]




Nb subsets/asap score
Rank
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[111/13.0] [4]
[109/22.5] [10]
[104/20.0] [8]
[79/21.0] [9]
[75/19.5] [7]
[71/6.0] [2]
[67/5.5] [1]
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BAU_3165_Coralliophila_meyendorffii_sp2
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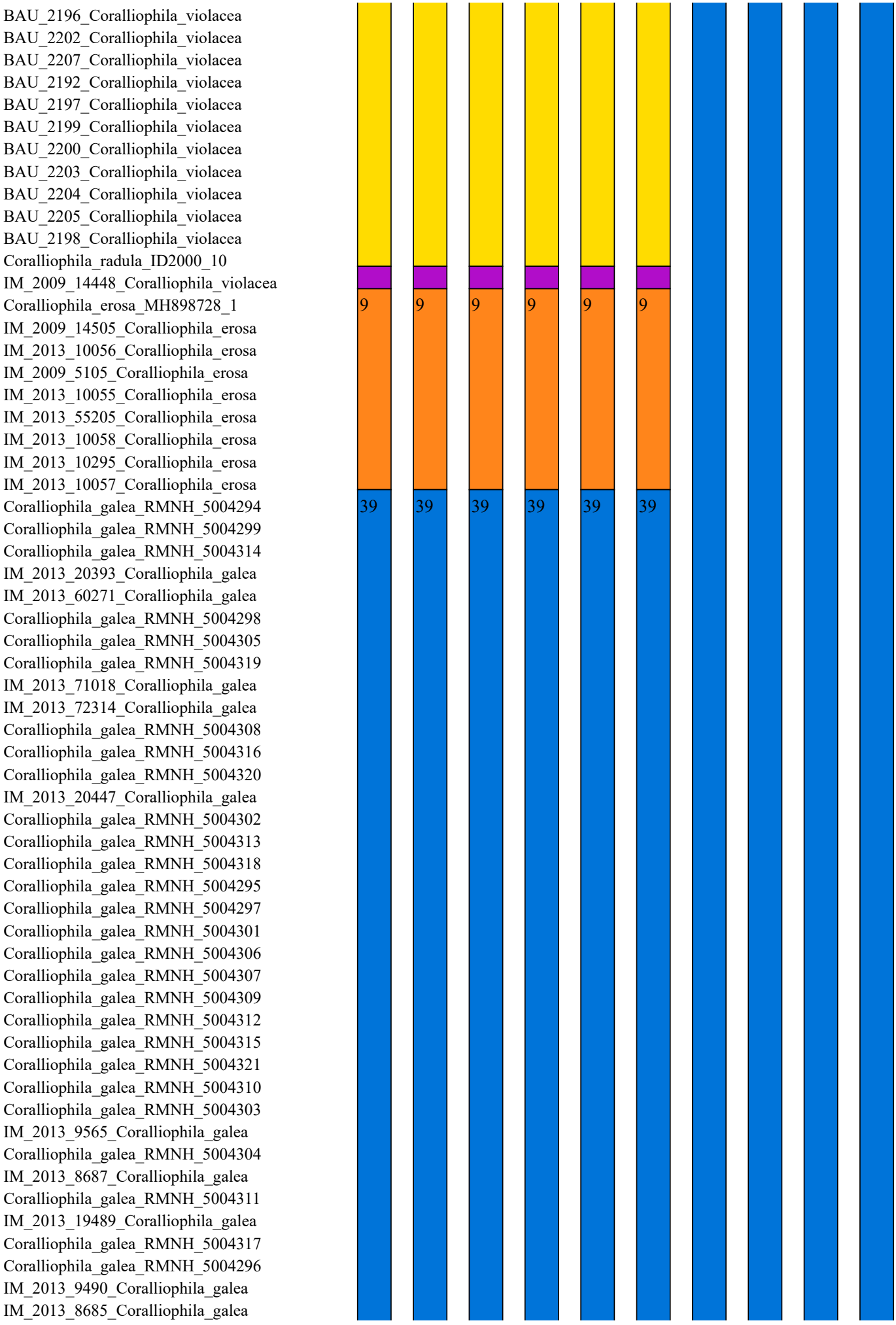
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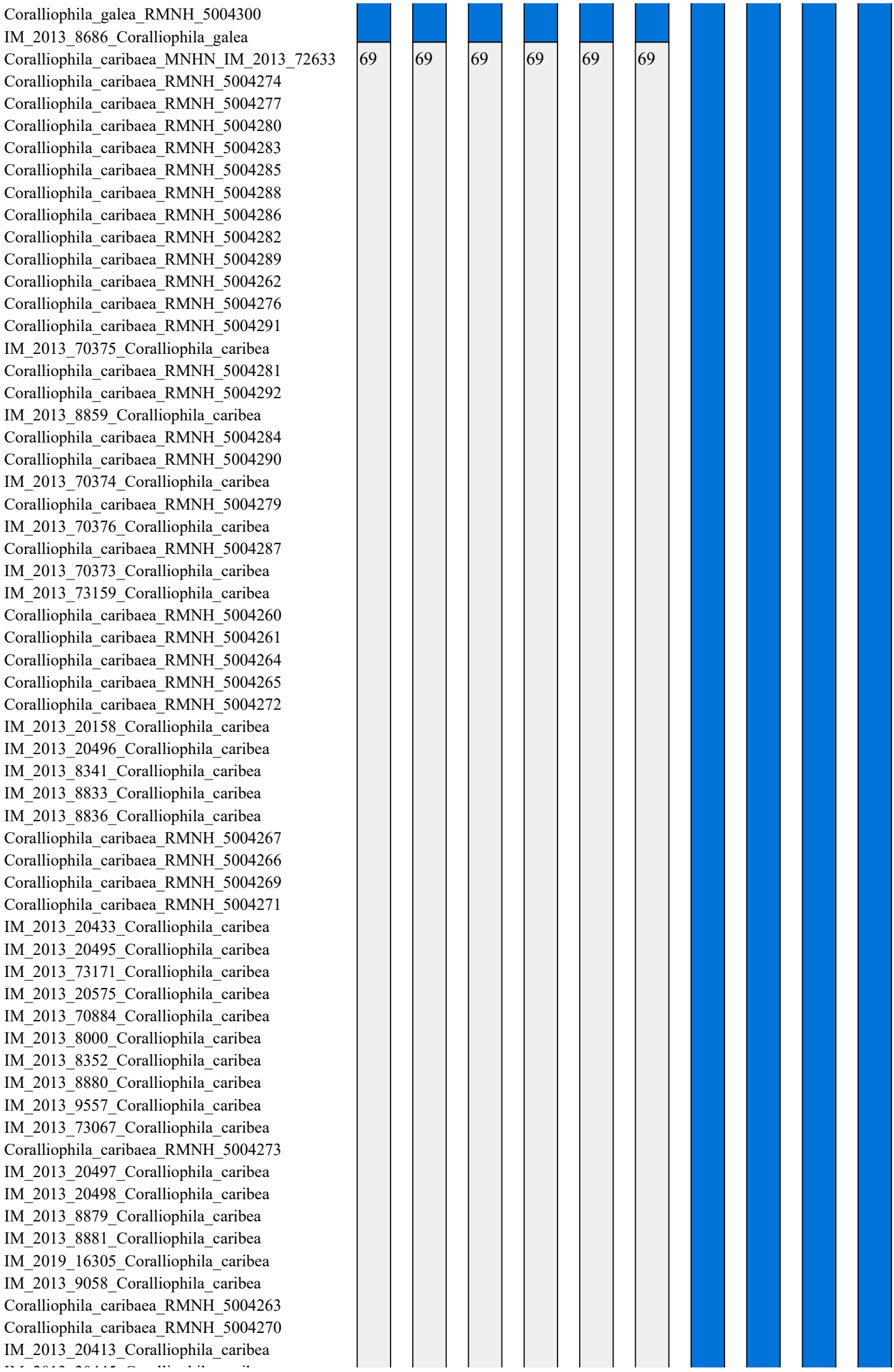
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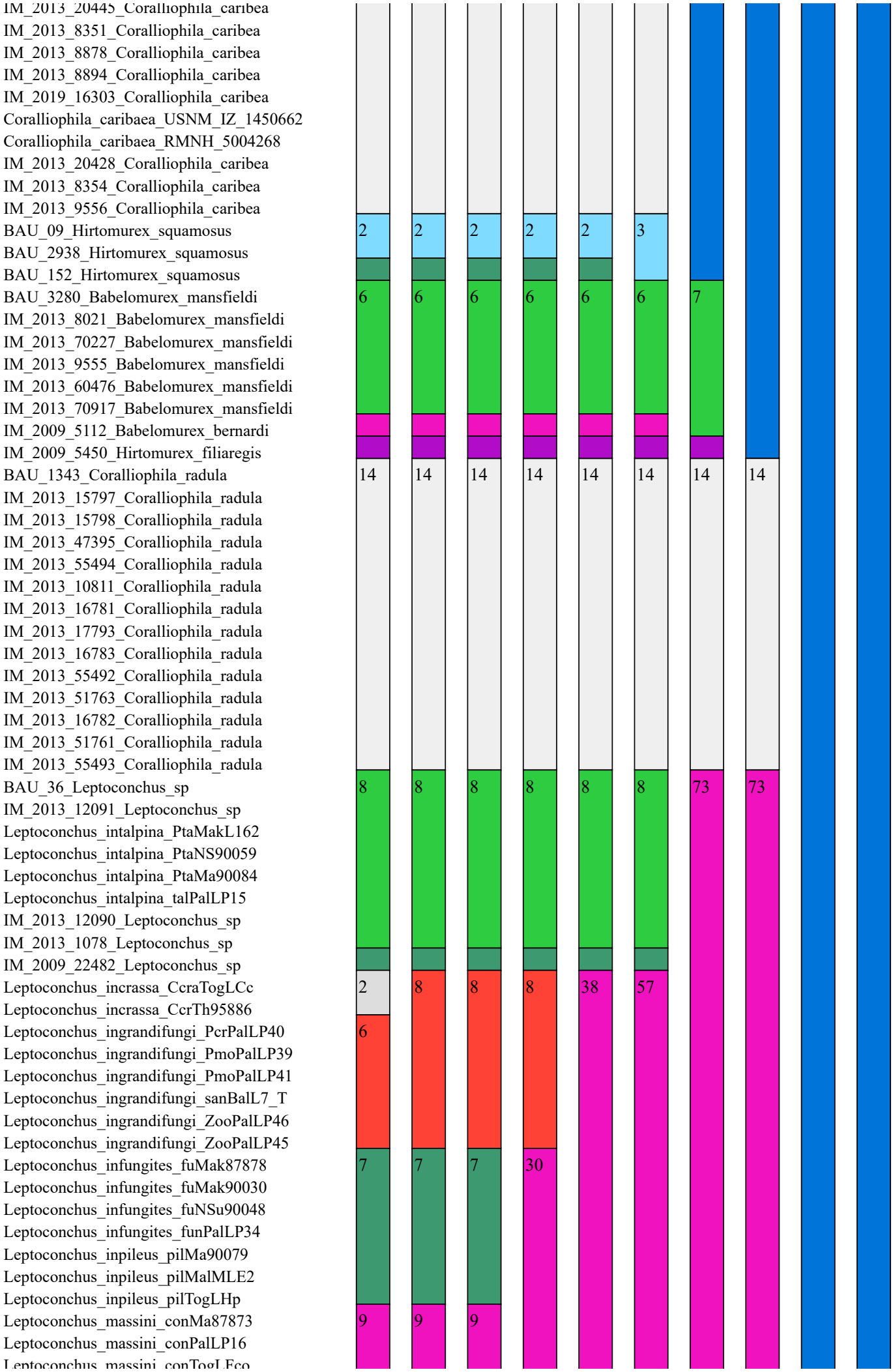
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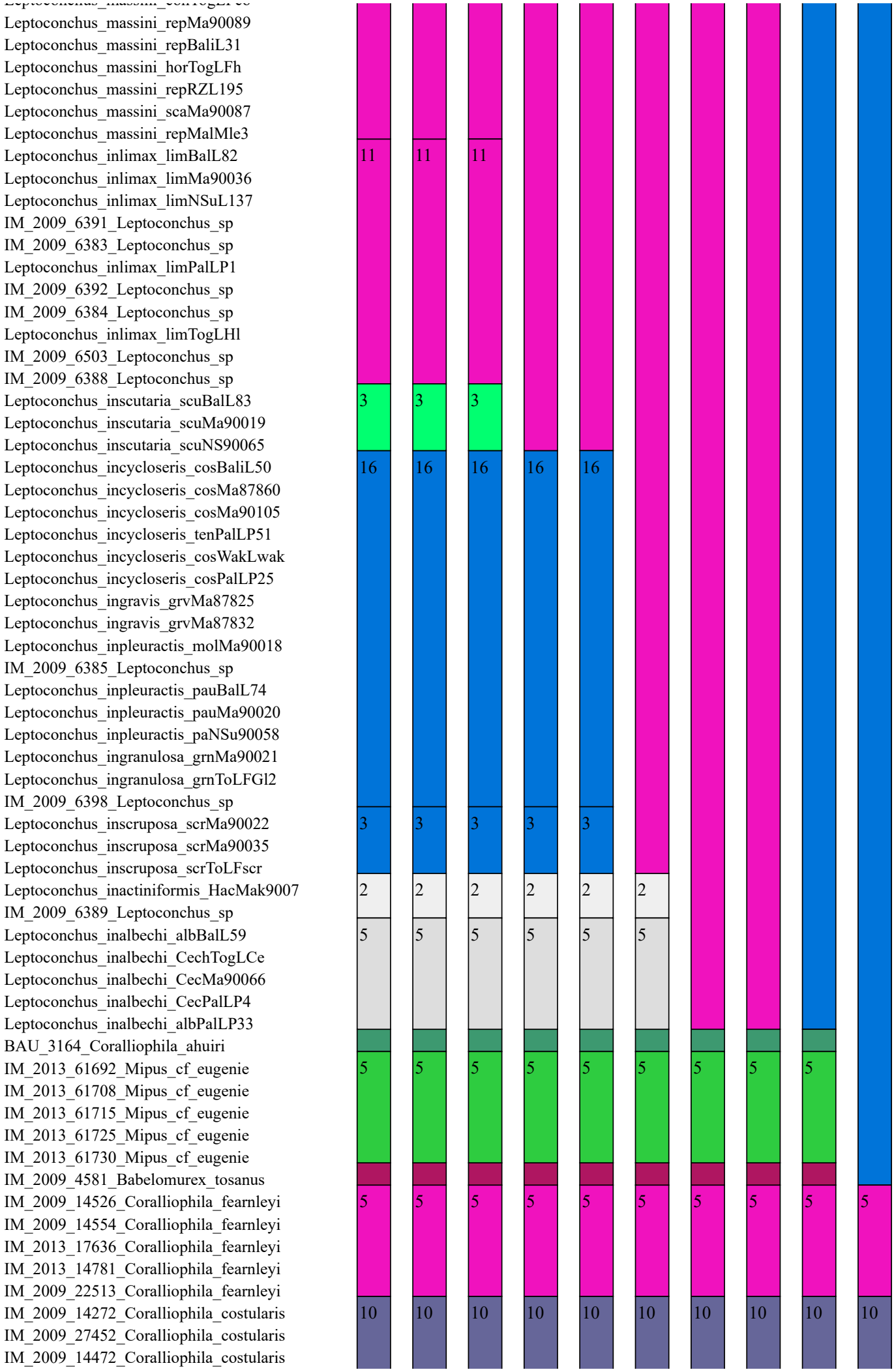
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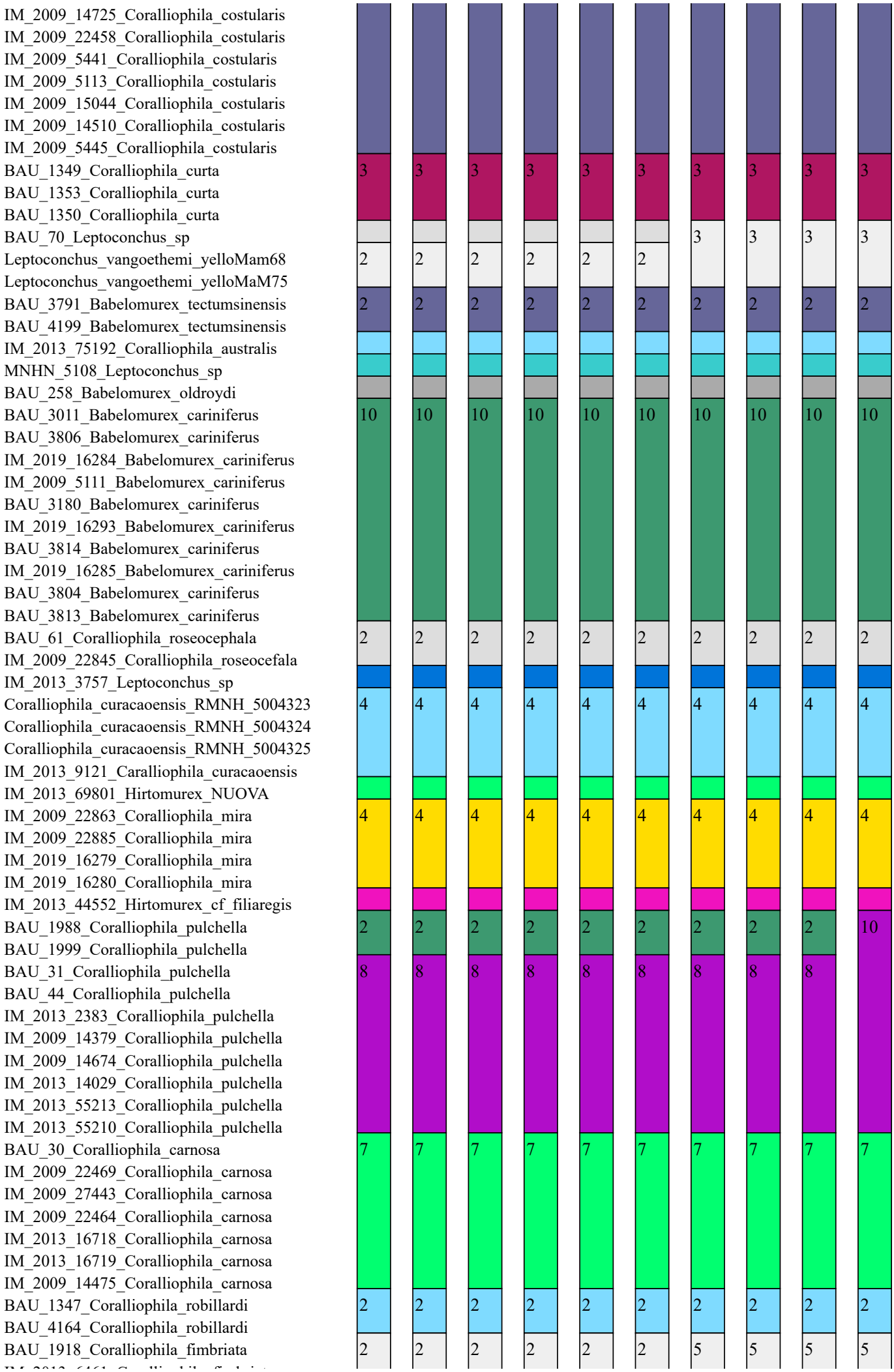
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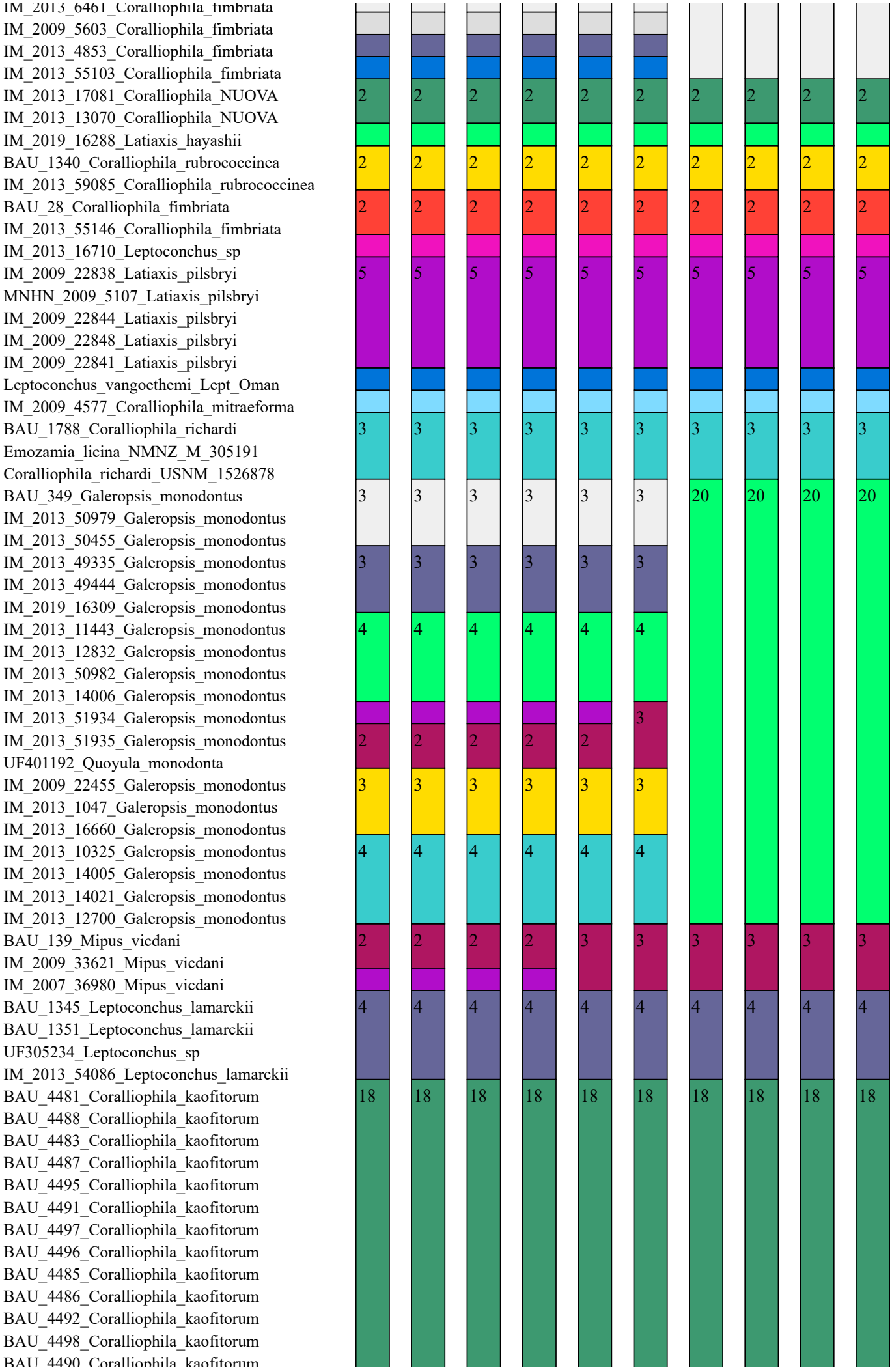
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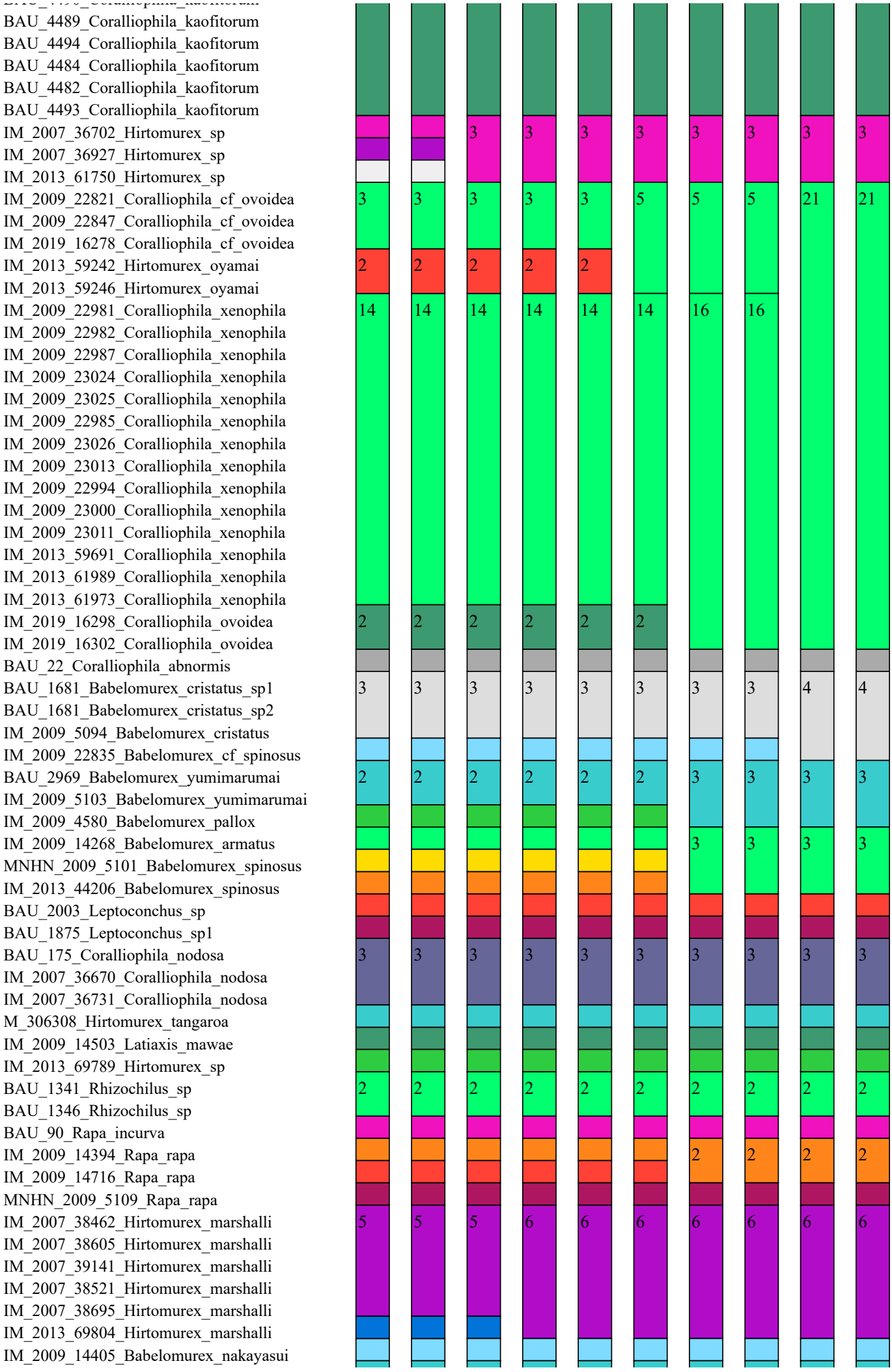
IM_2013_17081_Coralliophila_NUOVA
IM_2013_13070_Coralliophila_NUOVA
IM_2019_16288_Latiaxis_hayashii
BAU_1340_Coralliophila_rubrococcinea
IM_2013_59085_Coralliophila_rubrococcinea
BAU_28_Coralliophila_fimbriata
IM_2013_55146_Coralliophila_fimbriata
IM_2013_16710_Leptoconchus_sp
IM_2009_22838_Latiaxis_pilsbryi
MNHN_2009_5107_Latiaxis_pilsbryi
IM_2009_22844_Latiaxis_pilsbryi
IM_2009_22848_Latiaxis_pilsbryi
IM_2009_22841_Latiaxis_pilsbryi
Leptoconchus_vangoethemi_Lept_Oman
IM_2009_4577_Coralliophila_mitraeforma
BAU_1788_Coralliophila_richardi
Emozamia_licina_NMNZ_M_305191
Coralliophila_richardi_USNM_1526878
BAU_349_Galeropsis_monodontus
IM_2013_50979_Galeropsis_monodontus
IM_2013_50455_Galeropsis_monodontus
IM_2013_49335_Galeropsis_monodontus
IM_2013_49444_Galeropsis_monodontus
IM_2019_16309_Galeropsis_monodontus
IM_2013_11443_Galeropsis_monodontus
IM_2013_12832_Galeropsis_monodontus
IM_2013_50982_Galeropsis_monodontus
IM_2013_14006_Galeropsis_monodontus
IM_2013_51934_Galeropsis_monodontus
IM_2013_51935_Galeropsis_monodontus
UF401192_Quoyula_monodonta
IM_2009_22455_Galeropsis_monodontus
IM_2013_1047_Galeropsis_monodontus
IM_2013_16660_Galeropsis_monodontus
IM_2013_10325_Galeropsis_monodontus
IM_2013_14005_Galeropsis_monodontus
IM_2013_14021_Galeropsis_monodontus
IM_2013_12700_Galeropsis_monodontus
BAU_139_Mipus_vicdani
IM_2009_33621_Mipus_vicdani
IM_2007_36980_Mipus_vicdani
BAU_1345_Leptoconchus_lamarckii
BAU_1351_Leptoconchus_lamarckii
UF305234_Leptoconchus_sp
IM_2013_54086_Leptoconchus_lamarckii
BAU_4481_Coralliophila_kaofitorum
BAU_4488_Coralliophila_kaofitorum
BAU_4483_Coralliophila_kaofitorum
BAU_4487_Coralliophila_kaofitorum
BAU_4495_Coralliophila_kaofitorum
BAU_4491_Coralliophila_kaofitorum
BAU_4497_Coralliophila_kaofitorum
BAU_4496_Coralliophila_kaofitorum
BAU_4485_Coralliophila_kaofitorum
BAU_4486_Coralliophila_kaofitorum
BAU_4492_Coralliophila_kaofitorum
BAU_4498_Coralliophila_kaofitorum
BAU_4490_Coralliophila_kaofitorum


BAU_4489_Coralliophila_kaofitorum
BAU_4494_Coralliophila_kaofitorum
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BAU_4482_Coralliophila_kaofitorum
BAU_4493_Coralliophila_kaofitorum
IM_2007_36702_Hirtomurex_sp
IM_2007_36927_Hirtomurex_sp
IM_2013_61750_Hirtomurex_sp
IM_2009_22821_Coralliophila_cf_ovoidea
IM_2009_22847_Coralliophila_cf_ovoidea
IM_2019_16278_Coralliophila_cf_ovoidea
IM_2013_59242_Hirtomurex_oyamai
IM_2013_59246_Hirtomurex_oyamai
IM_2009_22981_Coralliophila_xenophila
IM_2009_22982_Coralliophila_xenophila
IM_2009_22987_Coralliophila_xenophila
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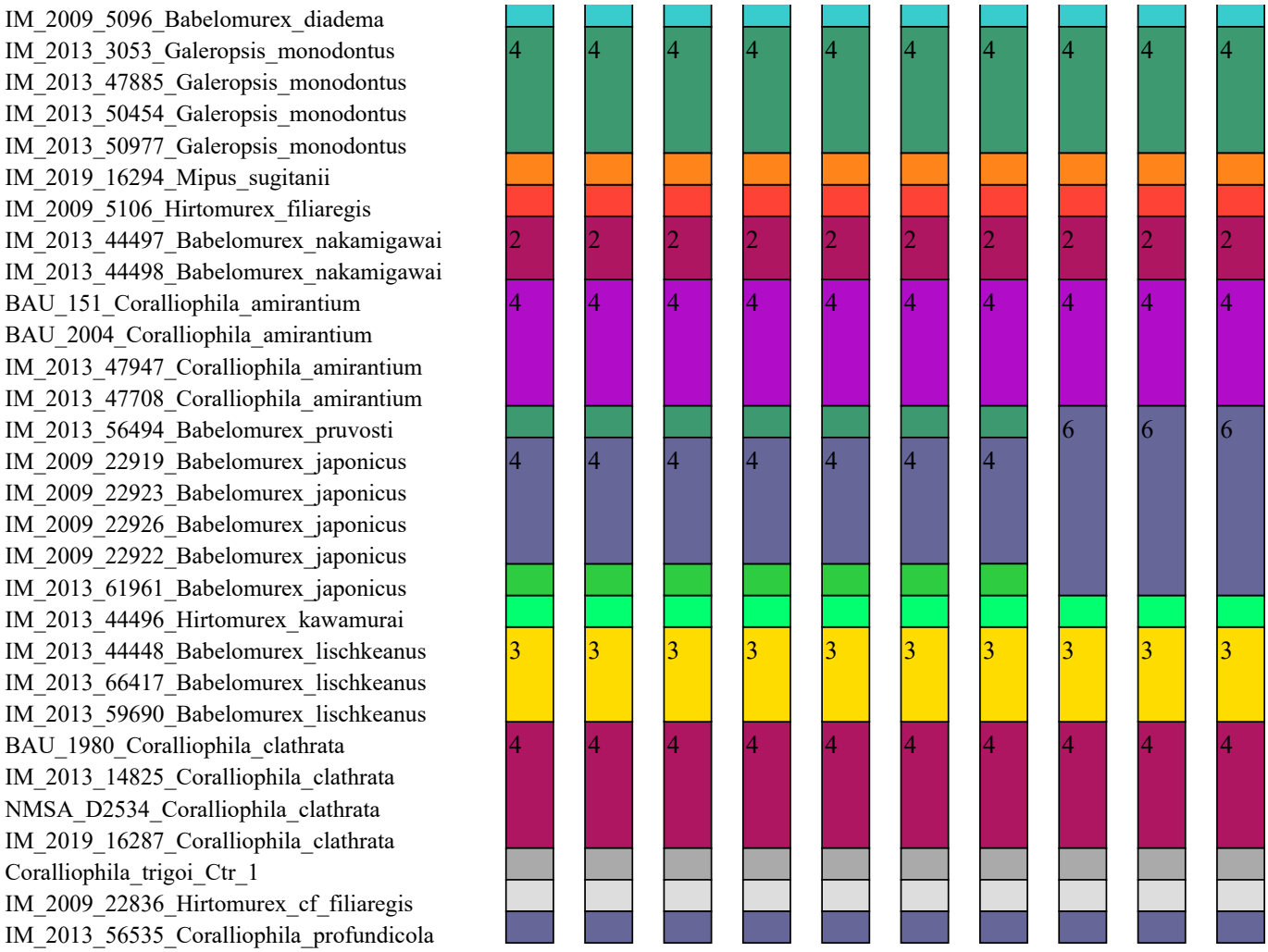
IM_2013_59691_Coralliophila_xenophila
IM_2013_61989_Coralliophila_xenophila
IM_2013_61973_Coralliophila_xenophila
IM_2019_16298_Coralliophila_ovoidea
IM_2019_16302_Coralliophila_ovoidea
BAU_22_Coralliophila_abnormis
BAU_1681_Babelomurex_cristatus_sp1
BAU_1681_Babelomurex_cristatus_sp2
IM_2009_5094_Babelomurex_cristatus
IM_2009_22835_Babelomurex_cf_spinosus
BAU_2969_Babelomurex_yumimarumai
IM_2009_5103_Babelomurex_yumimarumai
IM_2009_4580_Babelomurex_pallox
IM_2009_14268_Babelomurex_armatus
MNHN_2009_5101_Babelomurex_spinosus
IM_2013_44206_Babelomurex_spinosus
BAU_2003_Leptoconchus_sp
BAU_1875_Leptoconchus_sp1
BAU_175_Coralliophila_nodosa
IM_2007_36670_Coralliophila_nodosa
IM_2007_36731_Coralliophila_nodosa
M_306308_Hirtomurex_tangaroa
IM_2009_14503_Latiaxis_mawae
IM_2013_69789_Hirtomurex_sp
BAU_1341_Rhizochilus_sp
BAU_1346_Rhizochilus_sp
BAU_90_Rapa_incurva
IM_2009_14394_Rapa_rapa
IM_2009_14716_Rapa_rapa
MNHN_2009_5109_Rapa_rapa
IM_2007_38462_Hirtomurex_marshalli
IM_2007_38605_Hirtomurex_marshalli
IM_2007_39141_Hirtomurex_marshalli
IM_2007_38521_Hirtomurex_marshalli
IM_2007_38695_Hirtomurex_marshalli
IM_2013_69804_Hirtomurex_marshalli
IM_2009_14405_Babelomurex_nakayasui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IM_2013_50454_Galeropsis_monodontus
IM_2013_50977_Galeropsis_monodontus
IM_2019_16294_Mipus_sugitanii
IM_2009_5106_Hirtomurex_filiaregis
IM_2013_44497_Babelomurex_nakamigawai
IM_2013_44498_Babelomurex_nakamigawai
BAU_151_Coralliophila_amirantium
BAU_2004_Coralliophila_amirantium
IM_2013_47947_Coralliophila_amirantium
IM_2013_47708_Coralliophila_amirantium
IM_2013_56494_Babelomurex_pruvosti
IM_2009_22919_Babelomurex_japonicus
IM_2009_22923_Babelomurex_japonicus
IM_2009_22926_Babelomurex_japonicus
IM_2009_22922_Babelomurex_japonicus
IM_2013_61961_Babelomurex_japonicus
IM_2013_44496_Hirtomurex_kawamurai
IM_2013_44448_Babelomurex_lischkeanus
IM_2013_66417_Babelomurex_lischkeanus
IM_2013_59690_Babelomurex_lischkeanus
BAU_1980_Coralliophila_clathrata
IM_2013_14825_Coralliophila_clathrata
NMSA_D2534_Coralliophila_clathrata
IM_2019_16287_Coralliophila_clathrata
Coralliophila_trigoi_Ctr_1
IM_2009_22836_Hirtomurex_cf_filiaregis
IM_2013_56535_Coralliophila_profundicola