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Chytrid infection in Asia: How much do we know and what else do we need to know?

Supplementary Table S1. *Batrachochytrium dendrobatidis* infected amphibian species in Asian countries (taxonomic identification according to Frost 2019; original species name appeared in the paper has been kept in parentheses). Species with asterisk mark are exotic to Asian region.

SI no.	Order	Family	Species (Synonym/s)	English name	Country where affected	Sample tested/positive
1	Anura	Arthroleptidae	<i>Leptopelis uluguruensis</i> *	Uluguru Tree Frog	Japan	41/3
2	Anura	Bombinatoridae	<i>Bombina orientalis</i> *	Korean Fire-bellied Toad	South Korea, China	1389/199
3	Anura	Bufo	<i>Bufo bufo</i>	Common Toad	Russia	75/22
4	Anura	Bufo	<i>Bufo gargarizans</i>	West China Toad	China, South Korea	670/25
5	Anura	Bufo	<i>Bufo stejnegeri</i>	Water Toad	South Korea	142/8
6	Anura	Bufo	<i>Bufotes pewzowi</i> (<i>Pseudepidalea pewzowi</i>)	Southern Xinjiang Toad	China, Kyrgyzstan	195/9
7	Anura	Bufo	<i>Bufotes turanensis</i> (<i>Pseudepidalea turanensis</i>)	Turan Toad	Kyrgyzstan	2/2
8	Anura	Bufo	<i>Duttaphrynus melanostictus</i> (<i>Bufo melanostictus</i>)	Asian Black-spotted Toad	Cambodia, India	89/30
9	Anura	Bufo	<i>Incilius alvarius</i> (<i>Bufo alvarius</i>)*	Sonoran Desert Toad	Japan	1/1
10	Anura	Bufo	<i>Ingerophrynus celebensis</i>	Celebes Toad	Indonesia	14/1
11	Anura	Bufo	<i>Ingerophrynus macrotis</i> (<i>Bufo macrotis</i>)	Big-eyed Toad	Cambodia	5/1
12	Anura	Bufo	<i>Ingerophrynus parvus</i>	Indochinese Dwarf Toad	Thailand	6/1
13	Anura	Bufo	<i>Xanthophryne tigrina</i>	None noted	India	15/1
14	Anura	Ceratophryidae	<i>Ceratophrys calcarata</i>	Colombian Horned Frog	Japan	
15	Anura	Ceratophryidae	<i>Ceratophrys cornuta</i> *	Surinam Horned Frog	Japan	12/4
16	Anura	Ceratophryidae	<i>Ceratophrys cranwelli</i>	Cranwell's Horned Frog	Japan	48/3
17	Anura	Ceratophryidae	<i>Ceratophrys ornata</i> *	Argentina Horned Frog	Japan	159/35
18	Anura	Ceratophryidae	<i>Ceratophrys sp.</i>		Japan	11/1
19	Anura	Ceratophryidae	<i>Chacophrys pierottii</i> (<i>Ceratophrys pierottii</i>)	Lesser Chini Frog	Japan	7/1
20	Anura	Ceratophryidae	<i>Lepidobatrachus laevis</i> *	Budgett's Frog	Japan	15/4
21	Anura	Dendrobatidae	<i>Dendrobates tinctorius</i>	Blue Poison Frog	Thailand	59/23
22	Anura	Dendrobatidae	<i>Ranitomeya benedicta</i> (<i>Dendrobates benedicta</i>)*	None noted	Japan	1/1
23	Anura	Dendrobatidae	<i>Ranitomeya imitator</i> (<i>Dendrobates imitator</i>)*	Mimic Poison Frog	Japan	6/1
24	Anura	Dendrobatidae	<i>Ranitomeya reticulata</i> (<i>Dendrobates reticulatus</i>)*	Redback Poison Frog	Japan	3/1
25	Anura	Dendrobatidae	<i>Ranitomeya vanzolinii</i> (<i>Dendrobates vanzolinii</i>)*	Brazilian Poison Frog	Japan	6/1
26	Anura	Dicroglossidae	<i>Limnonectes blythii</i>	Blyth's Giant Frog	Singapore	25/1
27	Anura	Dicroglossidae	<i>Limnonectes gyldenstolpei</i>	Koontan Frog	Cambodia	6/1
28	Anura	Dicroglossidae	<i>Limnonectes khasianus</i> (<i>Limnonectes laticeps</i>)	Khasi Hills Frog	Malaysia	9/1
29	Anura	Dicroglossidae	<i>Limnonectes kuhlii</i>	Big-headed Mountain Frog	Malaysia	11/1

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30	Anura	Dicroglossidae	<i>Limnonectes macrocephalus</i>	Big-headed Wart Frog	Philippines	
31	Anura	Dicroglossidae	<i>Limnonectes magnus</i>	Mindanao Fanged Frog	Philippines	
32	Anura	Dicroglossidae	<i>Limnonectes microdiscus</i>	Indonesia Wart Frog	Indonesia	10/1
33	Anura	Dicroglossidae	<i>Limnonectes sp.</i>		Indonesia	8/1
34	Anura	Dicroglossidae	<i>Limnonectes woodworthi</i>	Woodworth's Wart Frog	Philippines	9/4
35	Anura	Dicroglossidae	<i>Minervarya brevipalmata (Fejervarya brevipalmata)</i>	Peters' Frog	India	9/1
36	Anura	Dicroglossidae	<i>Minervarya caperata (Fejervarya caperata)</i>	Wrinkled Fejervarya	India	4/3
37	Anura	Dicroglossidae	<i>Minervarya cepfi (Fejervarya cepfi)</i>	CEPF Burrowing Frog	India	7/1
38	Anura	Dicroglossidae	<i>Minervarya sahyadris (Fejervarya sahyadris)</i>	Minevarya Frog	India	14/5
39	Anura	Dicroglossidae	<i>Sphaerotheca dobsonii</i>	Dobson's Burrowing Frog	India	5/1
40	Anura	Dicroglossidae	<i>Nanorana quadranus</i>	Swelled-vented Frog	China	21/1
41	Anura	Dicroglossidae	<i>Nanorana unculuanus</i>	Yunnan Asian Frog	China	4/2
42	Anura	Dicroglossidae	<i>Nanorana yunnanensis</i>	Yunnan Spiny Frog	China	12/1
43	Anura	Dicroglossidae	<i>Occidozyga laevis</i>	Yellow-bellied Puddle Frog	Philippines	2/2
44	Anura	Dicroglossidae	<i>Occidozyga lima</i>	Green Floating Frog	Cambodia	12/3
45	Anura	Dicroglossidae	<i>Quasipaa boulengeri</i>	Boulenger's Spiny Frog	China	34/2
46	Anura	Dicroglossidae	<i>Fejervarya cancrivora</i>	Brackish Water Frog	Singapore	43/3
47	Anura	Dicroglossidae	<i>Fejervarya limnocharis</i>	Cricket Frog	China, Cambodia, Sri Lanka	904/42
48	Anura	Dicroglossidae	<i>Fejervarya sp.</i>		India	10/3
49	Anura	Dicroglossidae	<i>Hoplobatrachus rugulosus</i>	East Asian Bullfrog	Cambodia	285/23
50	Anura	Dicroglossidae	<i>Hoplobatrachus tigerinus</i>	Indian Bullfrog	India	9/5
51	Anura	Hylidae	<i>Dryophytes immaculatus (Hyla immaculata, Dryophytes suweonensis)</i>	Spotless Tree Toad	China, South Korea	94/53
52	Anura	Hylidae	<i>Dryophytes japonicus (Hyla japonica)</i>	Japanese Treefrog	South Korea, Japan	1809/232
53	Anura	Hylidae	<i>Hyla annectans</i>	Indian Hylid Frog	China	72/13
54	Anura	Hylidae	<i>Hyla arborea*</i>	European Treefrog	Japan	5/4
55	Anura	Hylidae	<i>Hyla chinensis</i>	Common Chinese Treefrog	China	11/1
56	Anura	Hylidae	<i>Trachycephalus resinifictrix (Phrynohyas resinifictrix)*</i>	Kunawalu Casque-headed Frog	Japan	9/1
57	Anura	Hyperoliidae	<i>Afrixalus fornasinii</i>	Silver-banded Banana Frog	Japan	1/1
58	Anura	Leptodactylidae	<i>Leptodactylus pentadactylus</i>	Smoky Jungle Frog	Japan	1/1
59	Anura	Megophryidae	<i>Leptolalax sp.</i>		Laos, Vietnam	22/2
60	Anura	Megophryidae	<i>Megophrys sp. (Ophryophryne sp.)</i>		Vietnam	35/2
61	Anura	Megophryidae	<i>Leptobrachium hasseltii</i>	Hasselt's Litter Frog	Indonesia	5/1
62	Anura	Megophryidae	<i>Leptobrachium hendricksoni</i>	Spotted Litter Frog	Malaysia	20/2
63	Anura	Megophryidae	<i>Leptobrachium sp.</i>		Vietnam	
64	Anura	Micrixalidae	<i>Micrixalus saxicola</i>	Black Torrent Frog	India	25/2
65	Anura	Microhylidae	<i>Dyscophus antongilii</i>	Tomato Frog	Thailand	8/1
66	Anura	Microhylidae	<i>Metaphrynella pollicaris</i>	Malaysian Treefrog	Malaysia	4/1
67	Anura	Microhylidae	<i>Microhyla annectans</i>	Brown Narrow-mouthed Frog	Malaysia	4/1
68	Anura	Microhylidae	<i>Microhyla fissipes</i>	Ornate Narrowmouth Frog	Cambodia	21/6
69	Anura	Microhylidae	<i>Microhyla heymonsi</i>	Black-sided Narrow-mouthed Frog	Cambodia, Malaysia	6/2
70	Anura	Microhylidae	<i>Microhyla mixtura</i>	Mixed Pygmy Frog	China	14/1
71	Anura	Microhylidae	<i>Microhyla pulchra</i>	Yellow-legged Narrow-mouthed Frog	Cambodia	8/4
72	Anura	Microhylidae	<i>Microhyla sp.</i>		Vietnam	
73	Anura	Microhylidae	<i>Plethodontohyla tuberata</i>	Interior Digging Frog	Japan	
74	Anura	Microhylidae	<i>Scaphiophryne boribory*</i>	None noted	Japan	3/1
75	Anura	Microhylidae	<i>Kaloula pulchra</i>	Painted Bullfrog	Cambodia, Malaysia	14/5
76	Anura	Nyctibatrachidae	<i>Lankanectes corrugatus</i>	Corrugated Water Frog	Sri Lanka	7/2
77	Anura	Nyctibatrachidae	<i>Nyctibatrachus humayuni</i>	Humayun's Wrinkled Frog	India	22/6

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78	Anura	Pelodyridae	<i>Ranoidea caerulea</i> (<i>Litoria caerulea</i>)	Green Tree Frog	Japan	8/4
79	Anura	Pipidae	<i>Xenophrys</i> sp.		Vietnam	
80	Anura	Pipidae	<i>Xenopus laevis</i> *	African Clawed Frog	China, Japan	302/115
81	Anura	Ranidae	<i>Chalcorana chalconota</i> (<i>Hylarana chalconota</i> , <i>Rana chalconota</i>)	Brown Stream Frog	Indonesia	43/4
82	Anura	Ranidae	<i>Chalcorana macrops</i> (<i>Hylarana macrops</i>)	Masarang Frog	Indonesia	4/1
83	Anura	Ranidae	<i>Huia masonii</i>	Javan Torrent Frog	Indonesia	58/2
84	Anura	Ranidae	<i>Hylarana erythraea</i>	Green-backed Frog	Cambodia	23/10
85	Anura	Ranidae	<i>Indosylvirana temporalis</i> (<i>Hylarana temporalis</i>)	Günther's Golden-backed Frog	India, Sri Lanka	38/3
86	Anura	Ranidae	<i>Nidirana adenopleura</i> (<i>Babina adenopleura</i>)	East China Music Frog	China	4/1
87	Anura	Ranidae	<i>Nidirana daunchina</i> (<i>Babina daunchina</i>)	Emei Music Frog	China	28/1
88	Anura	Ranidae	<i>Nidirana pleuraden</i> (<i>Babina pleuraden</i>)	Yunnan Music Frog	China	151/8
89	Anura	Ranidae	<i>Pulchrana glandulosa</i> (<i>Hylarana glandulosa</i>)	Rough-sided Frog	Malaysia	3/1
90	Anura	Ranidae	<i>Pulchrana grandocula</i> (<i>Hylarana grandocula</i>)	Big-eyed Frog	Philippines	
91	Anura	Ranidae	<i>Pulchrana picturata</i> (<i>Hylarana picturata</i>)	Spotted Stream Frog	Malaysia	3/1
92	Anura	Ranidae	<i>Pulchrana similis</i> (<i>Hylarana similis</i>)	Laguna del Bay Frog	Philippines	30/27
93	Anura	Ranidae	<i>Sanguirana luzonensis</i> (<i>Hylarana luzonensis</i>)	Luzon Frog	Philippines	28/1
94	Anura	Ranidae	<i>Glandirana emeljanovi</i> (<i>Rugosa emeljanovi</i>)	Northeast China Rough-skinned Frog	South Korea	244/3
95	Anura	Ranidae	<i>Glandirana rugosa</i> (<i>Rana rugosa</i>)	Japanese Wrinkled Frog	Japan, South Korea	417/44
96	Anura	Ranidae	<i>Lithobates catesbeianus</i> (<i>Rana catesbeiana</i>)*	American Bullfrog	China, Japan, Singapore, South Korea	2149/348
97	Anura	Ranidae	<i>Nidirana pleuraden</i> (<i>Rana pleuraden</i>)	Yunnan Music Frog	China	70/5
98	Anura	Ranidae	<i>Odorrana andersoni</i>	Anderson's Frog	China	69/4
99	Anura	Ranidae	<i>Odorrana chloronota</i>	Green Cascade Frog	Laos	15/1
100	Anura	Ranidae	<i>Odorrana grahami</i>	Graham Frog	China	20/2
101	Anura	Ranidae	<i>Odorrana hosii</i>	Poisonous Rock Frog	Indonesia	54/4
102	Anura	Ranidae	<i>Odorrana margaretae</i>	Margaret Frog	China	36/2
103	Anura	Ranidae	<i>Odorrana schmackeri</i>	Schmacker's Frog	China	47/4
104	Anura	Ranidae	<i>Odorrana</i> sp.		Vietnam	
105	Anura	Ranidae	<i>Pelophylax chosenucus</i>	Gold-spotted Pond Frog	South Korea	8/1
106	Anura	Ranidae	<i>Pelophylax nigromaculatus</i> (<i>Rana nigromaculata</i>)	Black-spotted Pond Frog	China, Japan, South Korea	1766/33
107	Anura	Ranidae	<i>Pelophylax terentievi</i>	Central Asian Pond Frog	China	24/2
108	Anura	Ranidae	<i>Rana arvalis</i>	Moor Frog	China	76/4
109	Anura	Ranidae	<i>Rana chaochiaoensis</i>	Chaochiao Brown Frog	China	91/16
110	Anura	Ranidae	<i>Rana chensinensis</i>	Chinese Brown Frog	China	47/5
111	Anura	Ranidae	<i>Rana coreana</i>	None noted	South Korea	239/44
112	Anura	Ranidae	<i>Rana dybowskii</i>	Northeast China Brown Frog	South Korea	1332/145
113	Anura	Ranidae	<i>Rana huanrenensis</i>	Korean Stream Brown Frog	South Korea	56/8
114	Anura	Ranidae	<i>Rana omeimontis</i>	Omei Brown Frog	China	42/7
115	Anura	Ranidae	<i>Rana ornativentris</i>	Montane Brown Frog	Japan	3/1
116	Anura	Ranidae	<i>Sanguirana luzonensis</i>	Luzon Frog	Philippines	
117	Anura	Ranidae	<i>Sylvirana faber</i> (<i>Rana faber</i>)		Cambodia	16/7
118	Anura	Ranixalidae	<i>Indirana brachytarsus</i>	Günther's Leaping Frog	India	5/1
119	Anura	Ranixalidae	<i>Indirana chiravasi</i>	Amboli Leaping Frog	India	3/1
120	Anura	Ranixalidae	<i>Indirana leithii</i>	Leith's Leaping Frog	India	74/2
121	Anura	Rhacophoridae	<i>Gracixalus</i> sp.		Vietnam	
122	Anura	Rhacophoridae	<i>Kurixalus bisacculus</i> (<i>Rhacophorus bisacculus</i>)	Hainan Small Treefrog	Cambodia	9/6
123	Anura	Rhacophoridae	<i>Kurixalus</i> sp.		Vietnam	

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124	Anura	Rhacophoridae	<i>Kurixalus verrucosus</i>	Small Rough-armed Tree Frog	Japan	3/1
125	Anura	Rhacophoridae	<i>Nyctixalus pictus</i>	White-spotted Treefrog	Japan	12/7
126	Anura	Rhacophoridae	<i>Philautus cardamonus</i>	None noted	Cambodia	15/7
127	Anura	Rhacophoridae	<i>Philautus petersi</i>	Peter's Bushfrog	Malaysia	6/1
128	Anura	Rhacophoridae	<i>Philautus sp.</i>		Malaysia, Laos	10/2
129	Anura	Rhacophoridae	<i>Philautus vermiculatus</i>	Vermiculate Bushfrog	Malaysia	5/1
130	Anura	Rhacophoridae	<i>Polypedates eques</i>	Montane Hour-glass Tree-frog	Sri Lanka	10/1
131	Anura	Rhacophoridae	<i>Polypedates leucomystax</i>	Common Treefrog	Cambodia, Singapore	111/23
132	Anura	Rhacophoridae	<i>Pseudophilautus alto</i>	Horton Plains Shrub Frog	Sri Lanka	26/1
133	Anura	Rhacophoridae	<i>Pseudophilautus amboli</i>	Amboli Bush Frog	India	18/1
134	Anura	Rhacophoridae	<i>Pseudophilautus silus</i>	Pug-nosed Shrub Frog	Sri Lanka	12/1
135	Anura	Rhacophoridae	<i>Pseudophilautus sordidus</i>	Grubby Shrub Frog	Sri Lanka	11/1
136	Anura	Rhacophoridae	<i>Raorchestes beddomii</i>	Beddome's Bush Frog	India	70/2
137	Anura	Rhacophoridae	<i>Raorchestes bombayensis</i>	Maharashtra Bush Frog	India	3/1
138	Anura	Rhacophoridae	<i>Raorchestes ghatei</i>	Ghate's Shrub Frog	India	5/3
139	Anura	Rhacophoridae	<i>Raorchestes gryllus (Philautus gryllus)</i>	Langbian Bubble-nest Frog	Vietnam	39/5
140	Anura	Rhacophoridae	<i>Rhacophorus bipunctatus</i>	Double-spotted Treefrog	Cambodia	8/5
141	Anura	Rhacophoridae	<i>Rhacophorus dennysi</i>	Denny's Whipping Frog	China	2/1
142	Anura	Rhacophoridae	<i>Rhacophorus margaritifer (Rhacophorus javanus)</i>	Javan Tree Frog	Indonesia	21/3
143	Anura	Rhacophoridae	<i>Rhacophorus sp.</i>		Vietnam	
144	Anura	Rhacophoridae	<i>Theloderma asperum</i>	Hill Garden Bug-eyed Frog	Japan	14/10
145	Anura	Rhacophoridae	<i>Theloderma bicolor</i>	Chapa Bug-eyed Frog	Japan	14/13
146	Anura	Telmatobiidae	<i>Telmatobius sp.*</i>		Japan	1/1
147	Caudata	Ambystomatidae	<i>Ambystoma opacum*</i>	Opaque Salamander	Japan	6/3
148	Caudata	Ambystomatidae	<i>Ambystoma sp.</i>		Japan	2/1
149	Caudata	Ambystomatidae	<i>Ambystoma tigrinum*</i>	Tiger Salamander	Japan	4/1
150	Caudata	Cryptobranchidae	<i>Andrias davidianus</i>	Chinese Giant Salamander	China	35/3
151	Caudata	Cryptobranchidae	<i>Andrias japonicus</i>	Japanese Giant Salamander	Japan	174/57
152	Caudata	Hynobiidae	<i>Liua shihi</i>	Sichuan Salamander	China	26/2
153	Caudata	Hynobiidae	<i>Hynobius leechii</i>	Gensan Salamander	South Korea	496/182
154	Caudata	Hynobiidae	<i>Hynobius quelpaertensis</i>	Cheju Salamander	South Korea	466/184
155	Caudata	Plethodontidae	<i>Desmognathus fuscus*</i>	Northern Dusky Salamander	Japan	4/4
156	Caudata	Plethodontidae	<i>Karsenia koreana</i>	Korean Crevice Salamander	South Korea	30/12
157	Caudata	Proteidae	<i>Necturus maculosus*</i>	Mudpuppy	Japan	1/1
158	Caudata	Salamandridae	<i>Cynops ensicauda</i>	Sword-tailed Newt	Japan	37/12
159	Caudata	Salamandridae	<i>Cynops orientalis</i>	Oriental Fire-bellied Newt	China	53/7
160	Caudata	Salamandridae	<i>Neurergus derjugini (Neurergus microspilotus)</i>	Derjugin's (Kordestan) Mountain Newt	Iran	91/43
161	Caudata	Salamandridae	<i>Pleurodeles waltl*</i>	Spanish Ribbed Newt	Japan	1/1
162	Caudata	Salamandridae	<i>Tylototriton zeigleri</i>	None noted	Vietnam	30/4
163	Caudata	Sirenidae	<i>Siren lacertina*</i>	Greater Siren	Japan	2/2
164	Gymnophiona	Indotyphlidae	<i>Gegeneophis ramaswamii</i>	Ramaswami's Caecilian	India	5/1
165	Gymnophiona	Indotyphlidae	<i>Gegeneophis seshachari</i>	Seshachari's Caecilian	India	9/4
166	Gymnophiona	Indotyphlidae	<i>Indotyphlus battersbyi</i>	Battersby's Caecilian	India	2/1
167	Gymnophiona	Indotyphlidae	<i>Indotyphlus maharashtraensis</i>	Humbarli Caecilian	India	3/1

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