



缅甸鱼类多样性研究进展

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中国科学院东南亚生物多样性研究中心 水生生物多样性研究组



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1. 学科组简介
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3. 过去十年研究进展

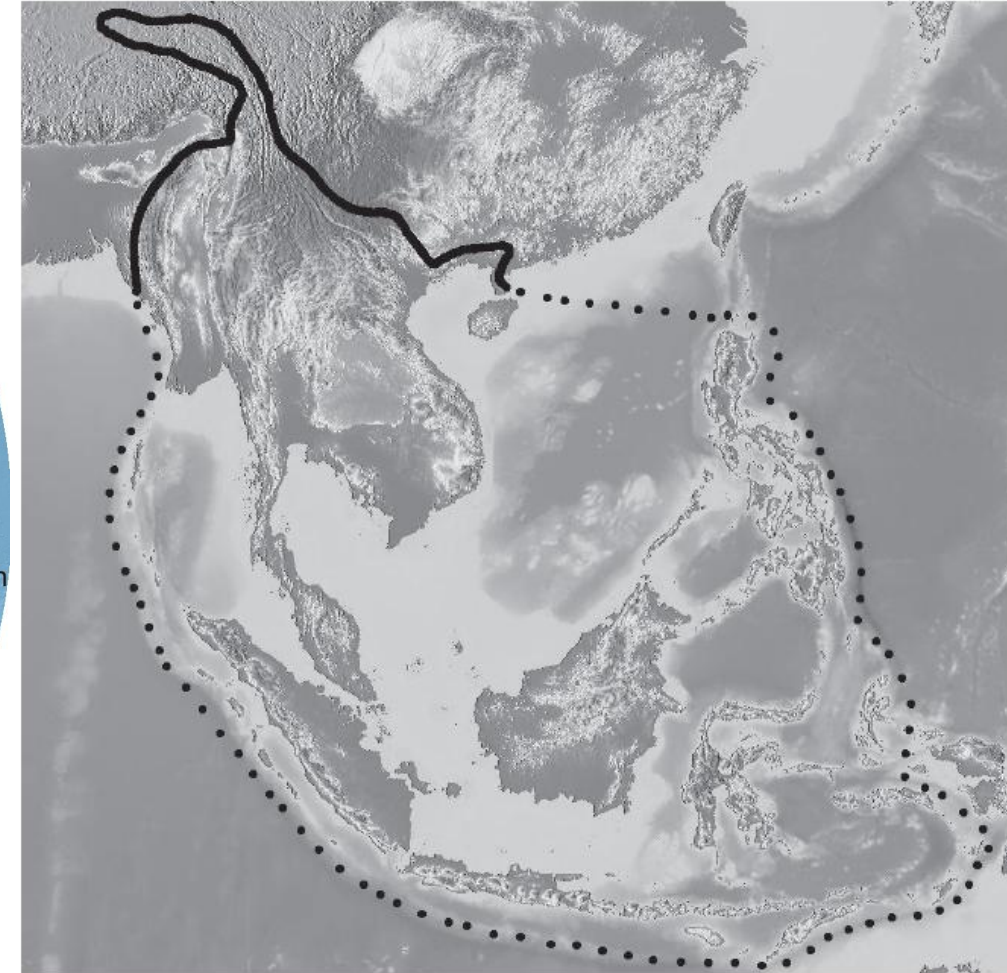
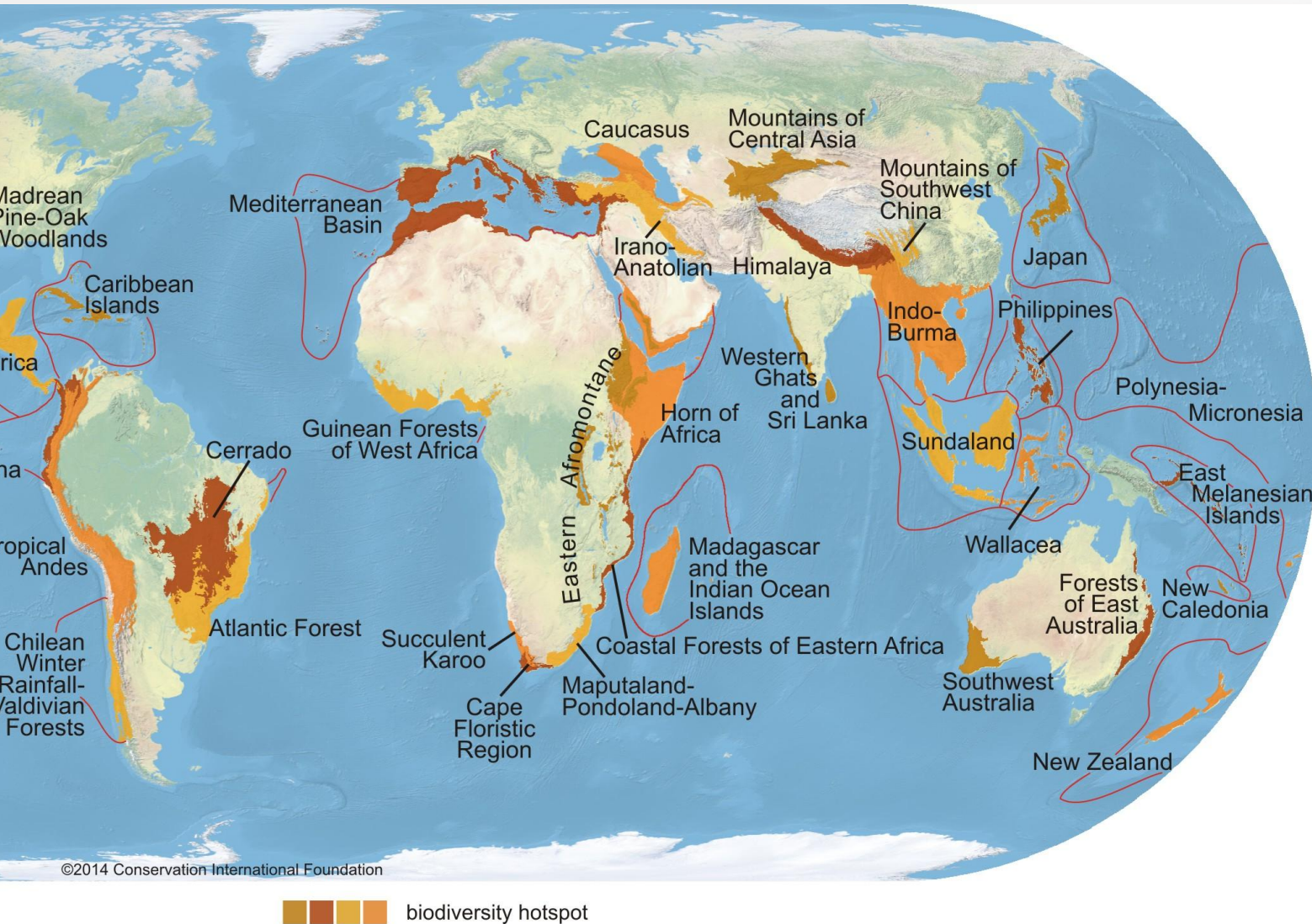
1. 学科组简介
Aquatic Biodiversity Research Group

研究兴趣

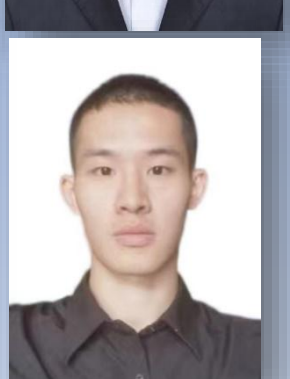
1. 东南亚水生生物多样性的调查与编目
2. 东南亚水生生物的系统分类、系统发育与生物地理学
3. 东南亚重要水生经济动物的保护与利用



研究区域



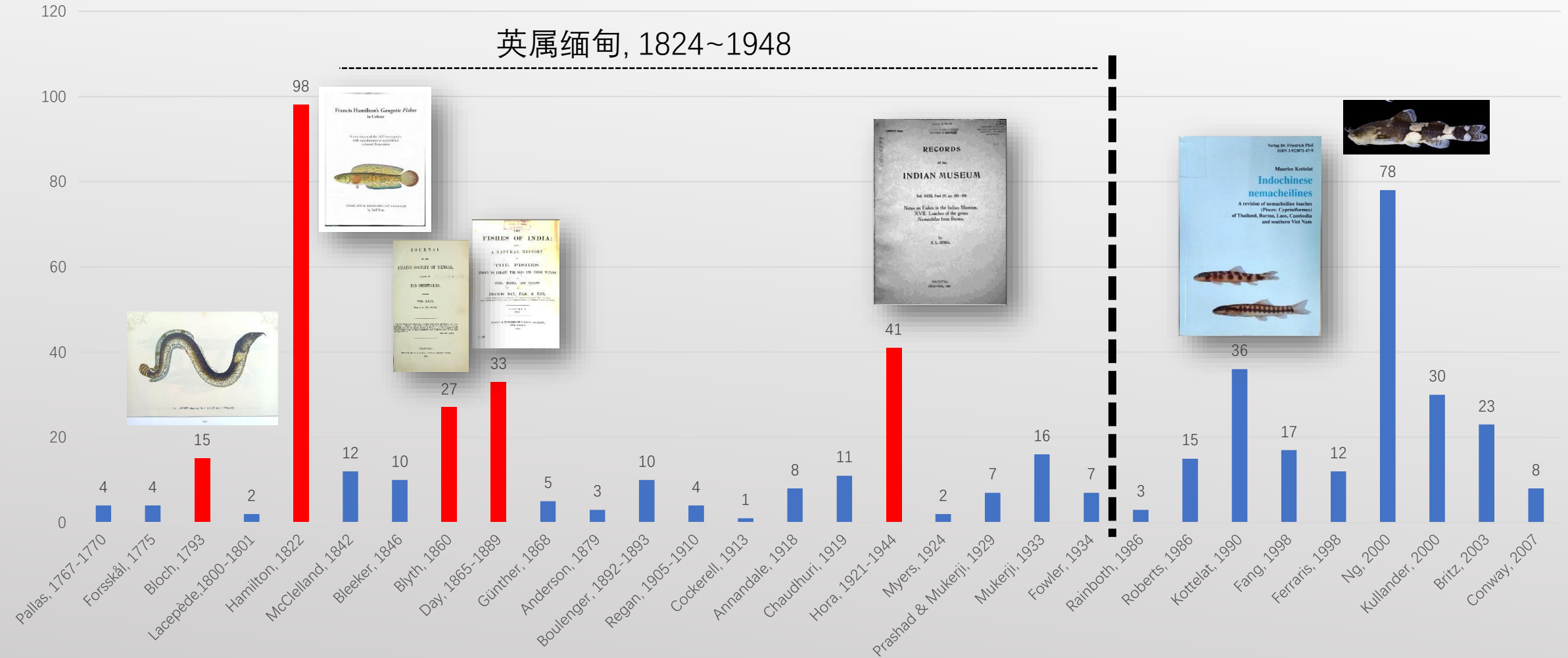
(Kottelat, 2013)



2.缅甸鱼类多样性

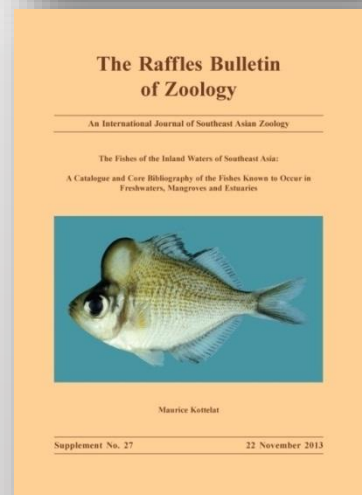
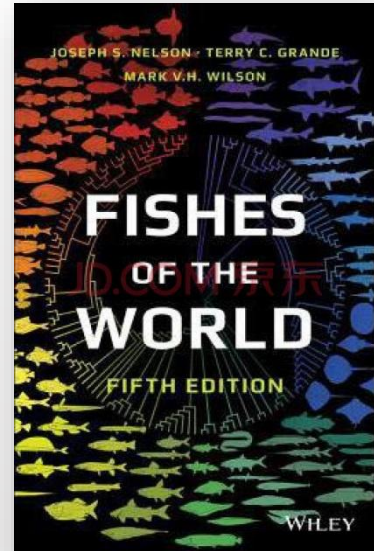
缅甸鱼类研究历史

No. of new species



缅甸的鱼类多样性？

- 27,977 total, 11,952 freshwater, 32,500 estimated (Nelson, 2016)
- 35,700 (Fishbase, 2024)
- SE Asia: 3,108, 26% (Kottelat, 2013)
- Myanmar: 1161 total, 545 freshwater (Fishbase, 2024)
- 160 (Fishbase, 2024) in Irrawaddy vs. 84 in 6 tributaries of Irrawaddy of China (Chen, 2013)
- 伊洛瓦底江和缅甸的鱼类多样性被低估！

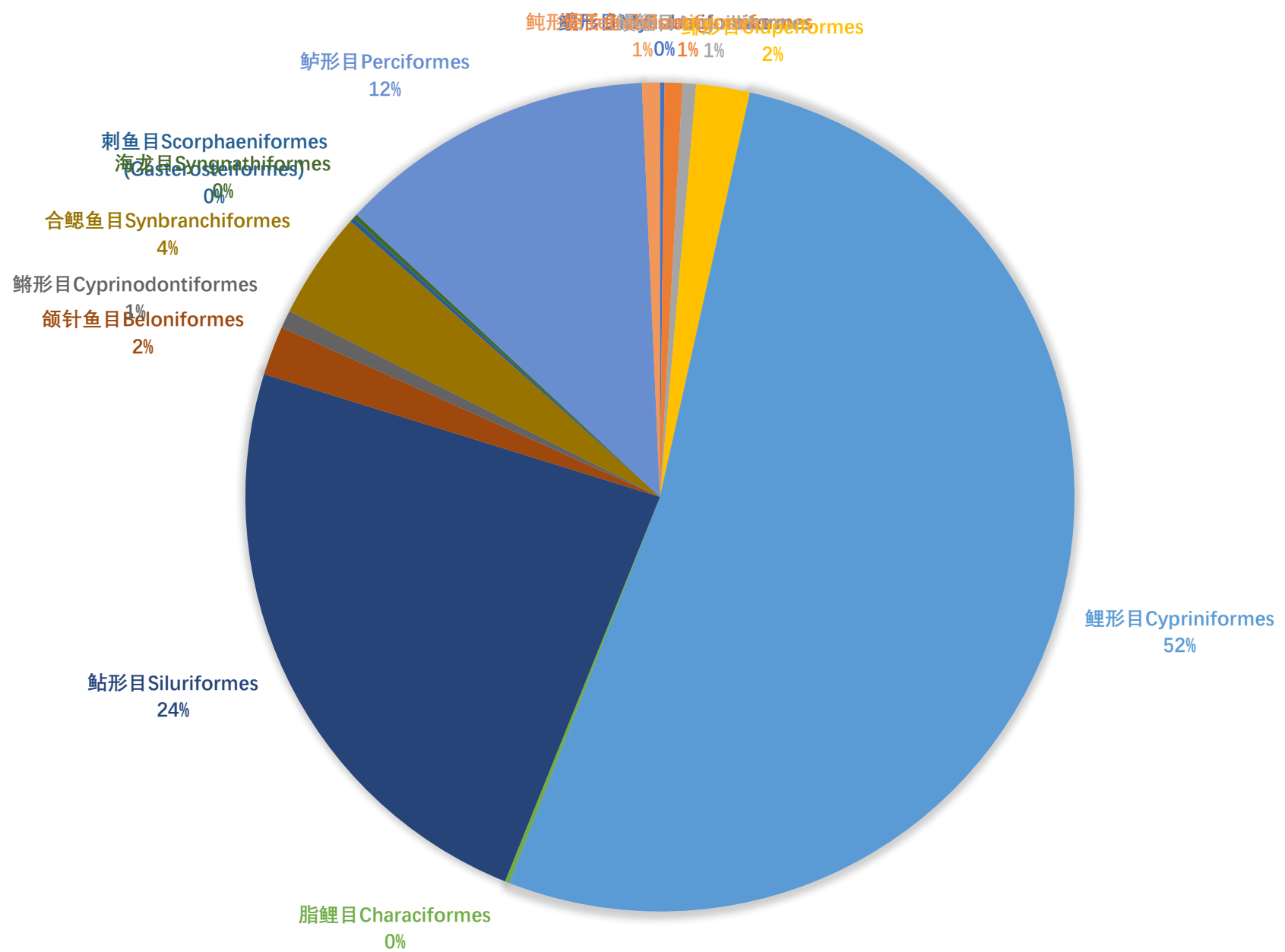


(Kottelat, 2013)

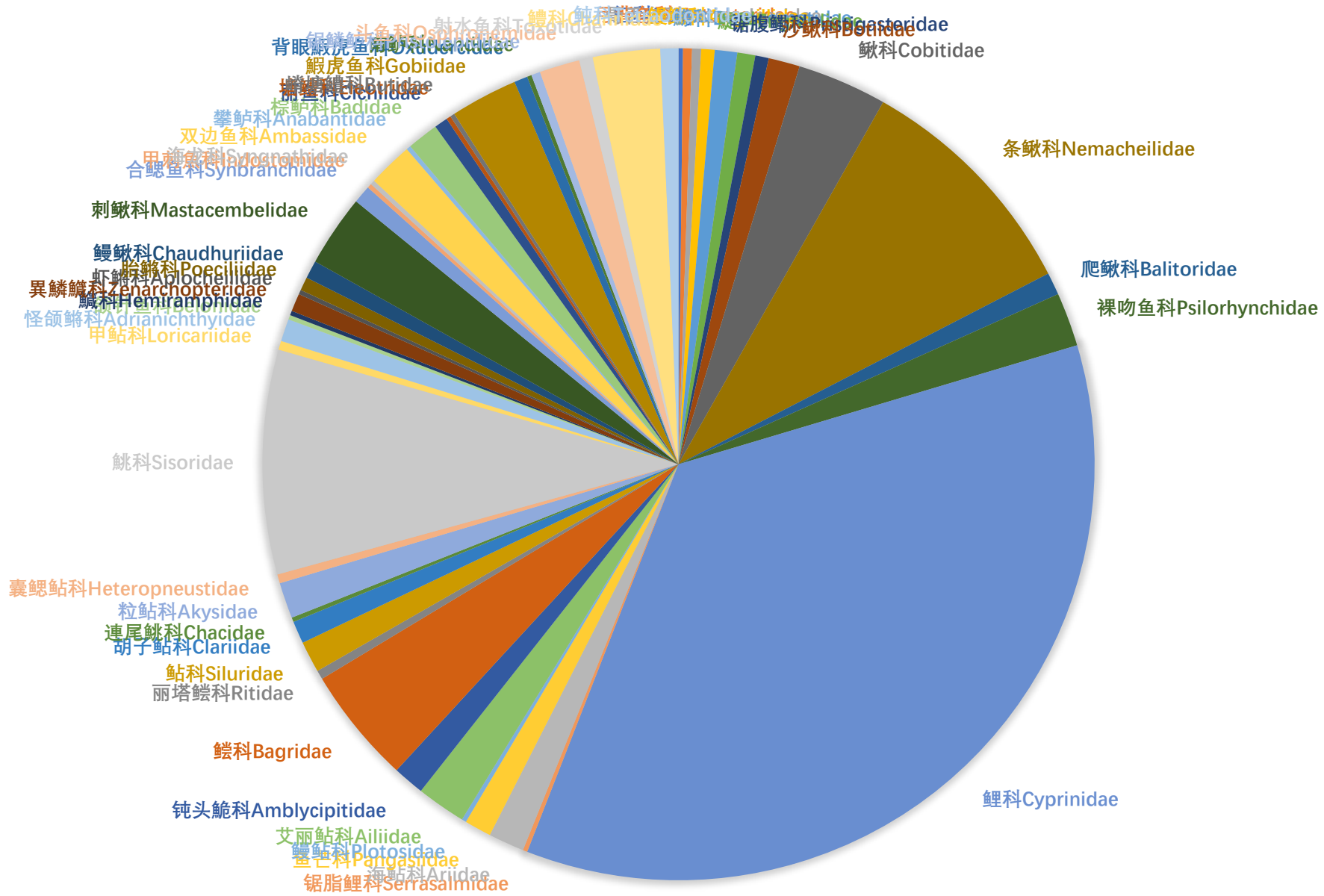
缅甸淡水鱼类分类界元统计

目	科	属	种	目	科	属	种
鲛形目 Myliobatiformes	魮科 Dasyatidae	1	1	颌针鱼目 Beloniformes	怪颌鲋科 Adrianichthyidae	1	5
骨舌鱼目 Osteoglossiformes	弓背鱼科 Notopteridae	2	2		颌针鱼科 Belonidae	1	1
	骨舌鱼科 Osteoglossidae	1	2		魮科 Hemiramphidae	1	1
鳗鲡目 Anguilliformes	鳗鲡科 Anguillidae	1	3		异鳞魮科 Zenarchopteridae	2	4
鲱形目 Clupeiformes	鰵科 Dorosomatidae	3	5	鲱形目 Cyprinodontiformes	虾鲱科 Aplocheilidae	1	1
	鰵科 Engraulidae	2	4		胎鲱科 Poeciliidae	3	3
	锯腹鰵科 Pristigasteridae	2	3	合鳃鱼目 Synbranchiformes	鳗鲷科 Chaudhuriidae	3	4
鲤形目 Cypriniformes	沙鰵科 Botiidae	2	7		刺鲷科 Mastacembelidae	2	16
	鰵科 Cobitidae	5	20		合鳃鱼科 Synbranchidae	2	4
	条鰵科 Nemacheilidae	8	53	刺鱼目 Scorphaeniformes			
	爬鰵科 Balitoridae	3	5	(Gasterosteiformes)	甲刺鱼科 Indostomidae	1	1
	裸吻鱼科 Psilorhynchidae	1	12	海龙目 Syngnathiformes	海龙科 Syngnathidae	1	1
	鲤科 Cyprinidae	52	204	鲈形目 Perciformes	双边鱼科 Ambassidae	4	10
脂鲤目 Characiformes	锯脂鲤科 Serrasalminae	1	1		攀鲈科 Anabantidae	1	1
鲇形目 Siluriformes	海鲇科 Ariidae	6	8		棕鲈科 Badidae	2	7
	鱼芒科 Pangasiidae	2	6		丽鱼科 Cichlidae	1	3
	鳗鲇科 Plotosidae	1	1		塘鳢科 Eleotridae	1	1
	艾丽鲇科 Ailiidae	6	11		峭塘鳢科 Butidae	1	1
	钝头鲇科 Amblycipitidae	1	7		鰕虎鱼科 Gobiidae	13	15
	鲿科 Bagridae	5	26		背眼鰕虎鱼科 Oxudercidae	3	3
	丽塔鲿科 Ritidae	1	2		南鲈科 Nandidae	1	1
	鲇科 Siluridae	3	7		锯鳞鲈科 Pristolepididae	1	2
	胡子鲇科 Clariidae	1	5		斗鱼科 Osphronemidae	6	9
	连尾鲃科 Chacidae	1	1		射水鱼科 Toxotidae	1	3
	粒鲇科 Akysidae	1	8		鳢科 Channidae	1	15
	囊鳃鲇科 Heteropneustidae	1	2	鲈形目 Tetraodontiformes	鲈科 Tetraodontidae	3	4
	鲃科 Sisoriidae	16	50				574
	甲鲇科 Loricariidae	2	2				

目

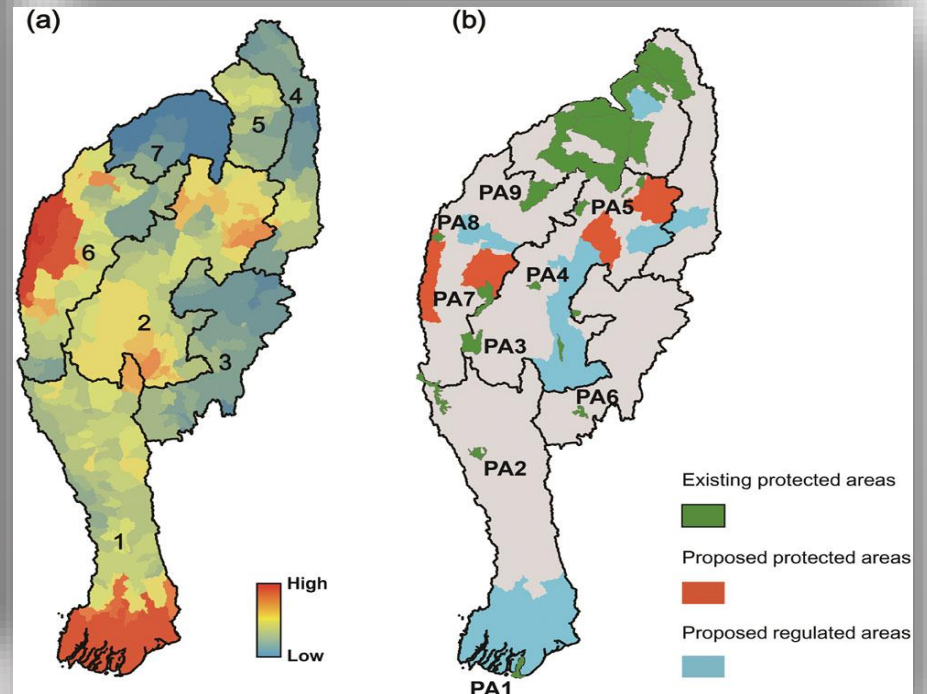
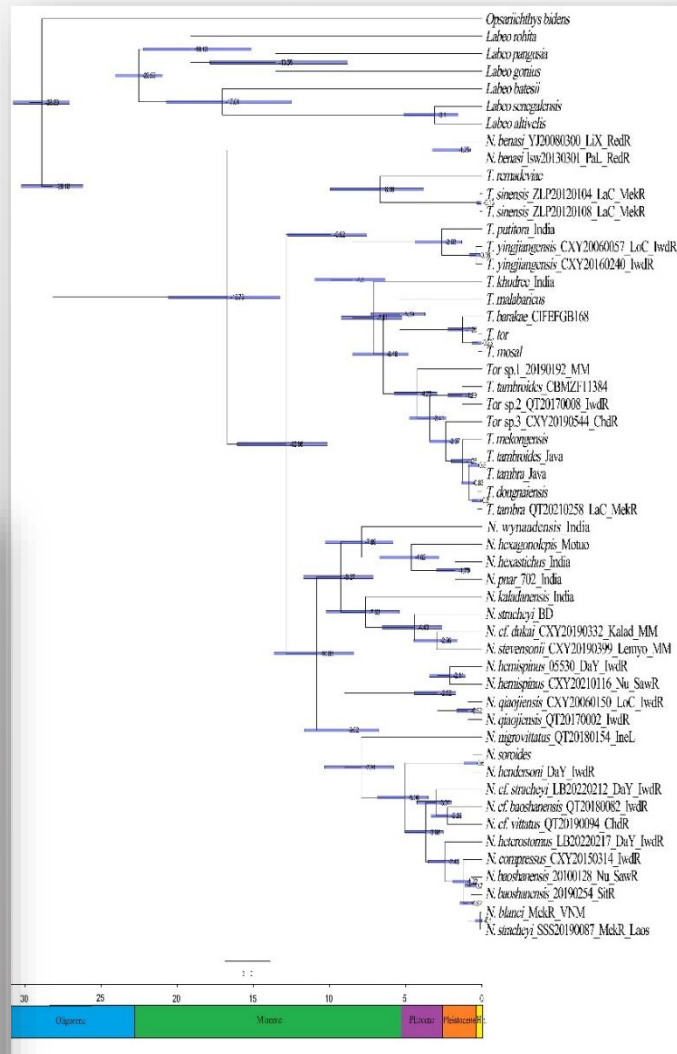


科



3.过去十年研究进展

- 调查与编目
- 系统分类
- 分子系统发育
- 多样性与保护



野外调查

采集物种 300 +, 标本24,000 +

1. East side of Hponkarazi , Puta-O survey (2014. 11-12)
2. West side of Hponkarazi , Puta-O survey (2015. 12)
3. Putao Plain, Myitkyina and Mandalay Survey (2016.7-8)
4. Irrawaddy and Sittang Survey (2016.12-2017.1)
5. Central Myanmar Survey (2017.6-7)
6. Upper Mali Kha river Survey (2017.11-12)
7. Kachin, Sagaing, Chin, Rakhine Survey (2018. 3-4)
8. Upper Chindwin River Survey (2018. 4-5)
9. Natmataung Survey (2018. 7-8)
10. Inlay Lake Survey (n=2, 2018. 8, 2023.6-7)
11. Indawgyi Lake Survey (n=5, 2018. 10-11, 2019.2, 2019.5, 2019.10, 2023.1)
12. South Myanmar Survey (2019. 4)
13. Htamanthi Wildlife Sanctuary (n=2, 2019.5-6, 2019.12)
14. Chin State Survey (2019. 10-11)
15. Middle Irrawaddy (2020.2)
16. Mangrove Ayeyarwaddy, Bogale and Pyapon (n=3, 2022. 1, 7, 12)
17. Kengtung & Tachileik Survey (2023.12)
18. Ayeyarwaddy & Yangon (2023.7-8)
19. Shwe Satt Taw (2023.8)





Khakaborazi National Park (2014)

2014.11-12, 30 days, 34 species and 358 specimens



迈立开高鲮 *Altigena malihkaia* sp. nov.
Zheng, Qin et Chen 2018

Qin et al. 2017. *Zoological Research*

Hponkanrazi Wildlife Sanctuary (2015)

- 2015.12-2016.1, 27 days, Putao Plain
- 50 species, 1548 specimens



红岗异齿鳅 *Oreoglanis hponkanensis*
Chen, Qin et Chen 2017



葡萄真马口波鱼 *Opsarius putaoensis*
Qin, Kyaw et Chen 2019



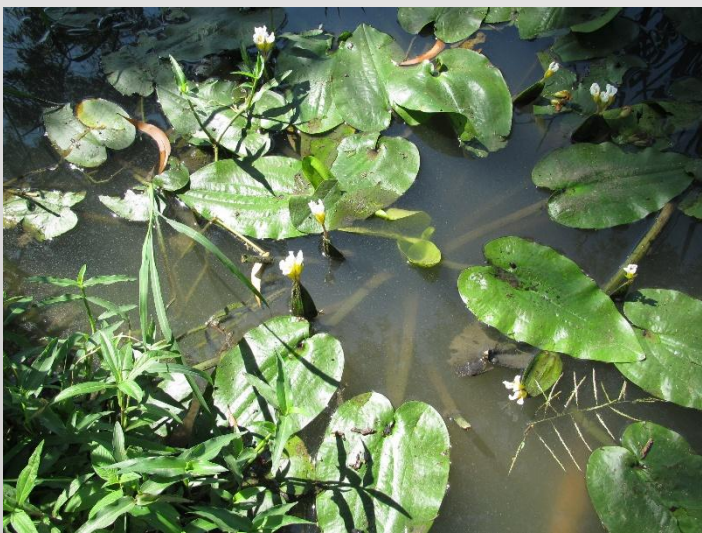
杨氏迷鳅 *Mustura yangi* Qin et al. 2022

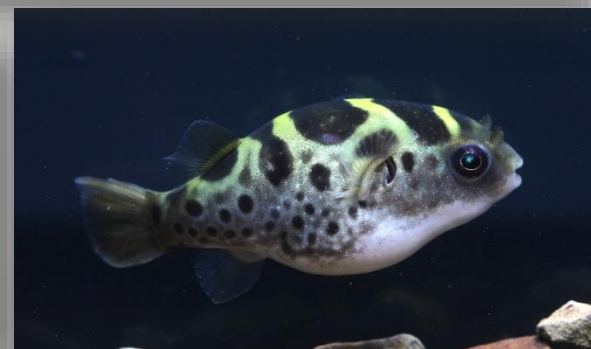


葡萄副棘鳅 *Paracanthocobitis putaoensis* Lin et al. 2023



典型生境





缅甸的新种发现



红岗异齿鳅 *Oreoglanis hponkanensis*
Chen, Qin et Chen 2017



法兰南鳅 *Schistura falamensis* Chen et al. 2020



葡萄副棘鳅 *Paracanthocobitis putaoensis* Lin et al. 2023



杨氏迷鳅 *Mustura yangi* Qin et al. 2022



迈立开高鲮 *Altigena malihkaia* sp. nov.
Zheng, Qin et Chen 2018



高尾南鳅 *Schistura altuscauda* Chen et al. 2020



长鳔游鳔条鳅 *Physoschistura longibulla*
Lin et al., 2024



葡萄真马口波鱼 *Opsarius putaoensis* Qin, Kyaw et Chen 2019



原鲶 *Bagarius protos* Zeng et Chen 2025



长丝鲶 *Bagarius dolichonema* Zeng et Chen 2025

缅甸的物种新记录



Garra bispinosa



Tor yingjiangensis



Schizothorax oligolepis



Garra qiaojiensis



Tor qiaojiensis

云南伊洛瓦底江流域4种鱼类新记录



奥氏裸吻鱼 (*Psilorhynchus olliei*)



长须纹胸鲃 (*Glyptothorax longinema*)



怒江高原鳅 (*Triplophysa nujiangensa*)



多鳞荷马条鳅 (*Homatula pycnolepis*) 曾宇旻等. 2025. 动物学杂志

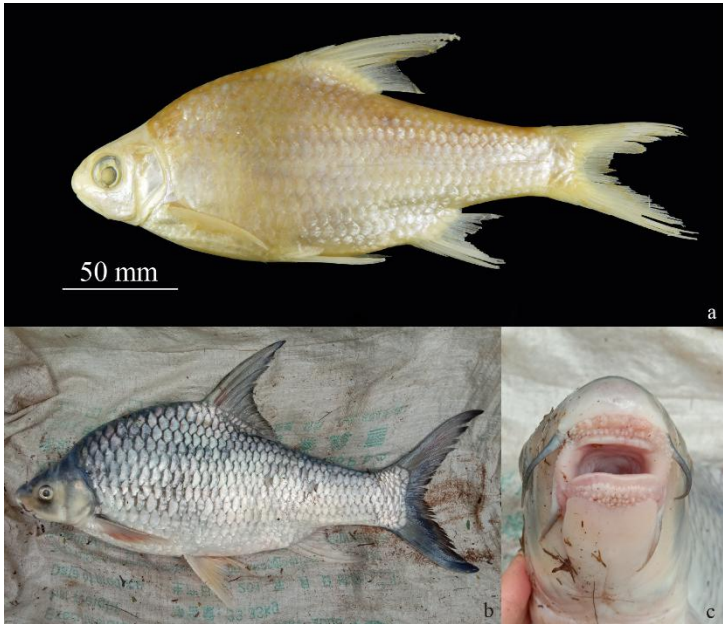
云南西双版纳5种鱼类中国新记录



盘褶鲃 (*Pseudecheneis sympelvicus*)



暹罗双孔鱼
(*Gyrinocheilus pennocki*)

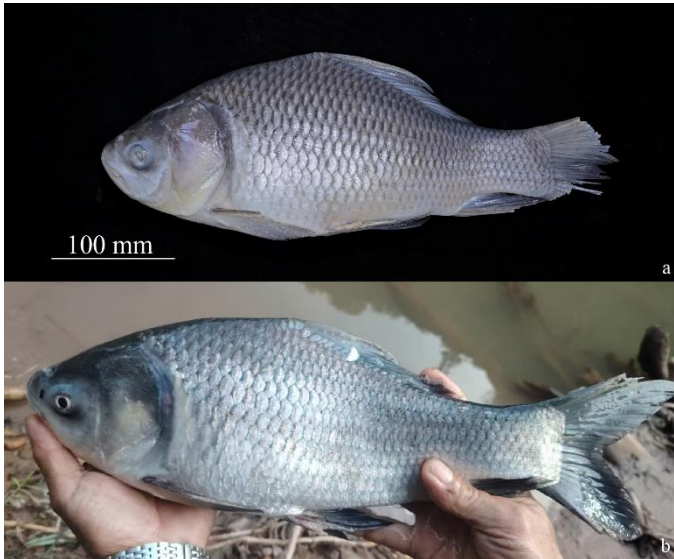


哈氏方口鲃 (*Cosmochilus harmandi*)



金黑野鲮 (*Labeo chrysophekadion*)

外来物种卡特拉野鲮 (*Labeo catla*)



曾宇旻等. 2025.动物学杂志

外来物种



Oreochromis nilotica



Trichopsis vittata



Barbonymus gonionotus



Poecilia reticulata



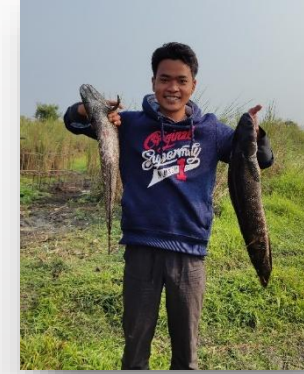
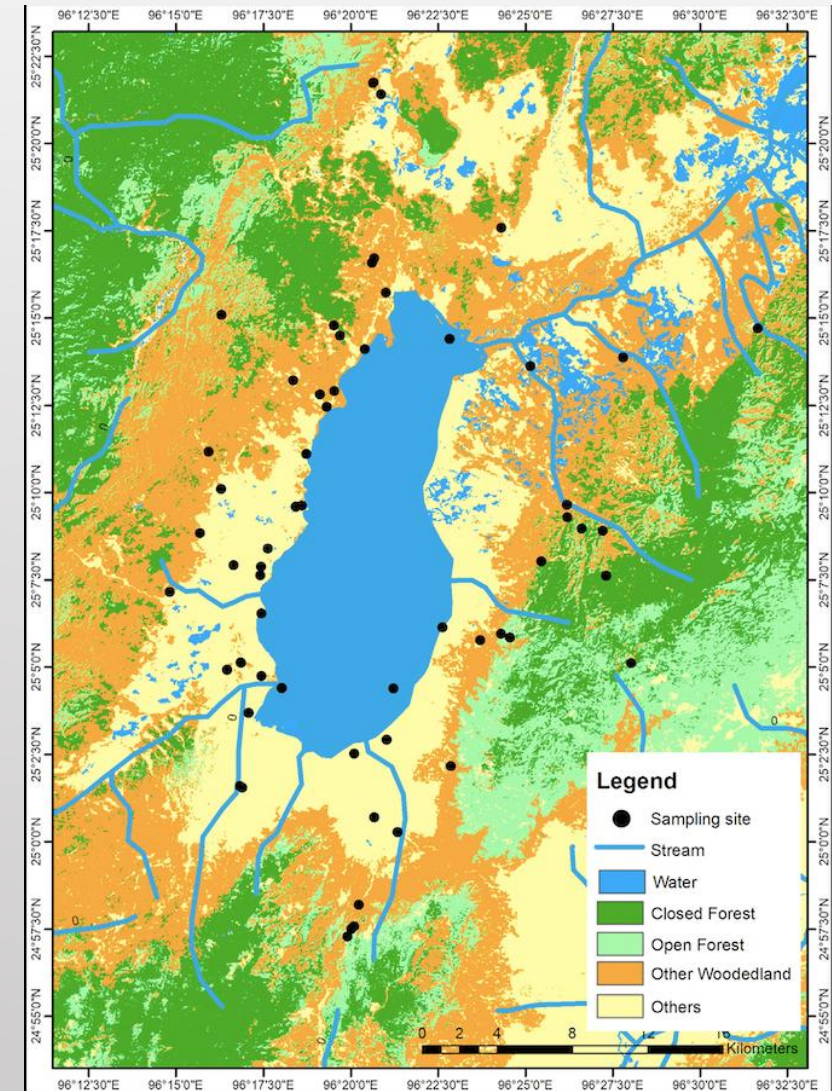
Pterygoplichthys multiradiatus



Xiphophorus hellerii

缅甸因道支湖 (Indawgyi) 调查 (2018-2023)

- 5 survey, 2018. 10-11, 2019.2, 2019.5, 2019.10, 2023.1
- 4509 specimens of 100 species were collected



Nay Htet Naing
Master Student 2021



Thinn Su Tin
Master Student 2017



Ei Mon Kyaw
Master Student 2017



因道支湖的鱼类多样性

- 102 species confirmed, including 2 alien species
- 6 endemic species



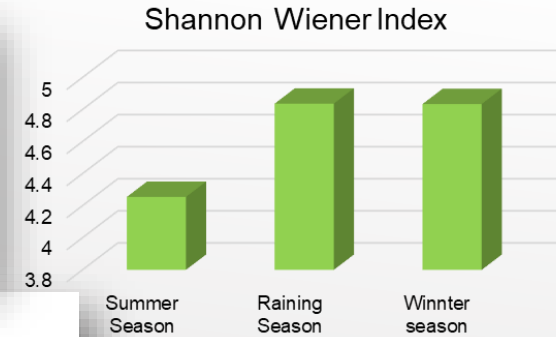
Lepidocephalichthys eleios



Microphis dunckeri



Mastacembelus pantherinus



Schistura indawgyiana



Indostomus paradoxus



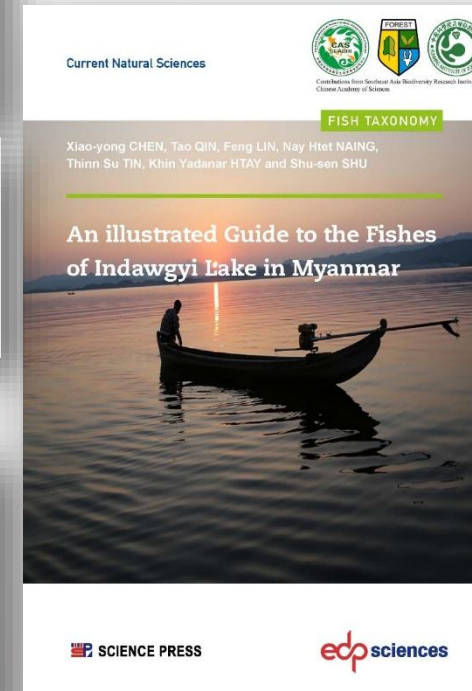
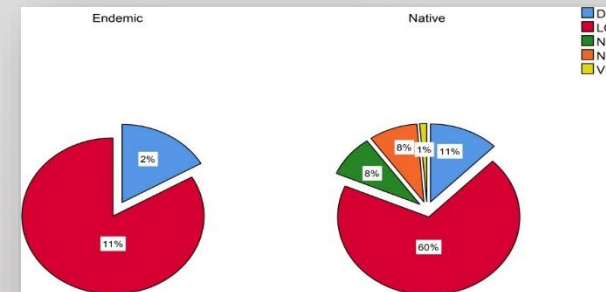
Mustura celata



Laubuka indawgyiana sp. nov.
Khin et al.



Parasphaerichthys ocellatus



南鳅属的分类学研究



CHEN Meng-Fang
2017



LIN Feng
2018



LYU Jian-Bin
2022



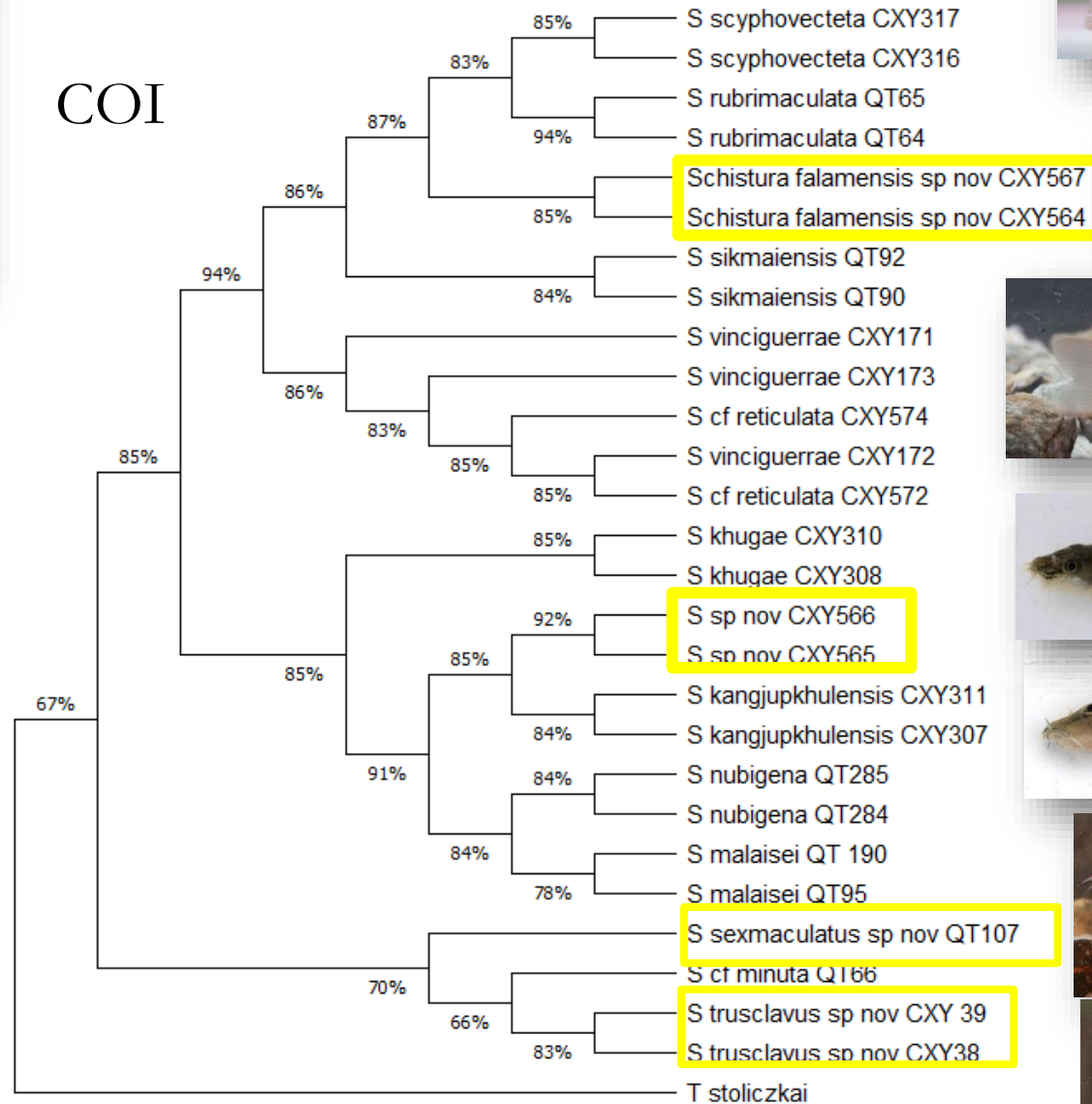
Schistura falamensis sp. nov.



Schistura altuscauda sp. nov.

Chen et al. 2020. *Zootaxa*

COI



独龙dulongensis



Garra sp. 1 Chin State



图 2-28 墨头鱼待定种 3

隆头surgifrons



乌克兰 Garra cf. ukhrulensis



缅甸的墨头鱼 Garra

横带flavatra



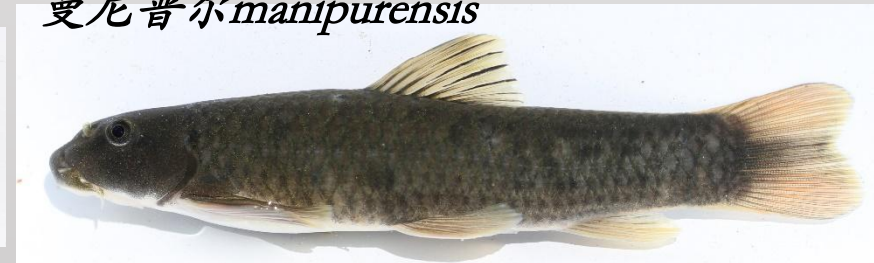
奇瓦chivaensis



黑项nigricollis



曼尼普尔manipurensis



马特matensis



唐卡ngatangka



斑尾色poecilura



阔尾rakhinica

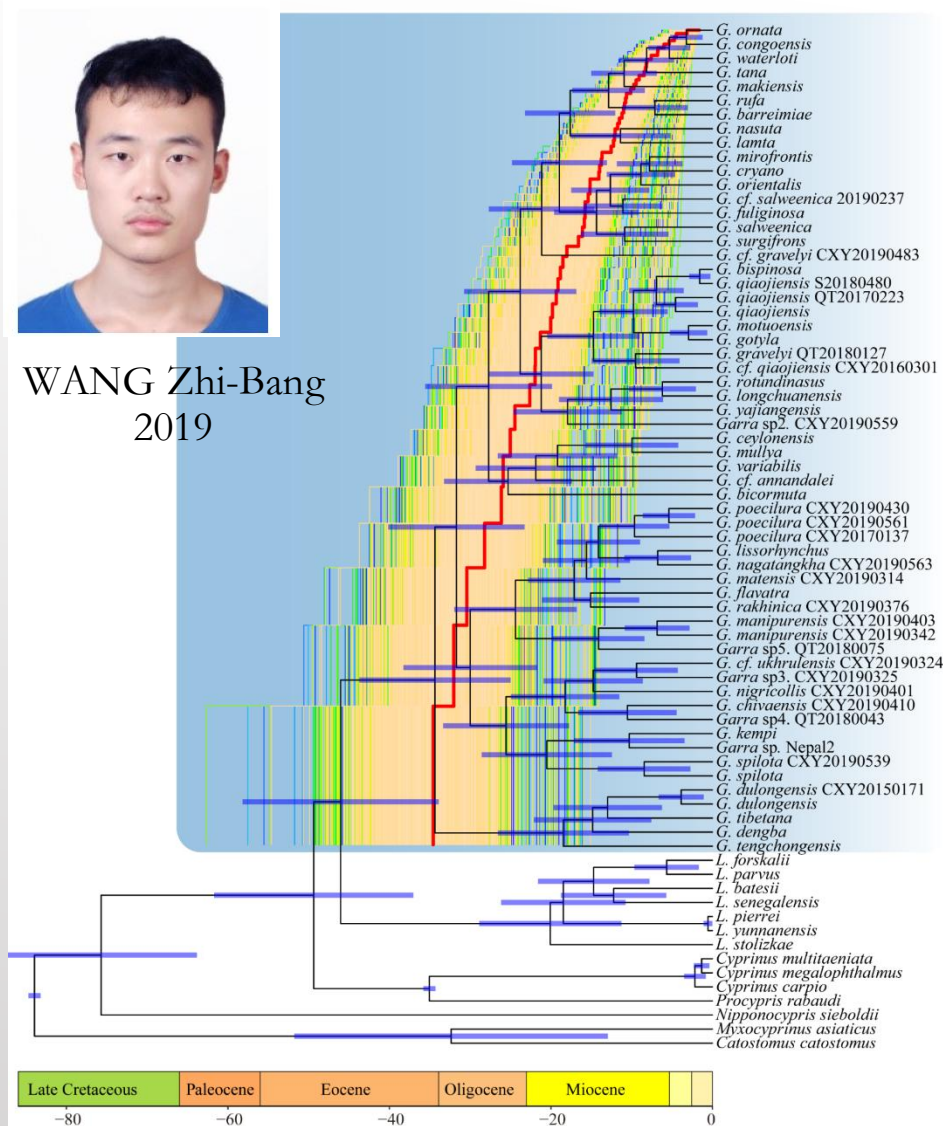
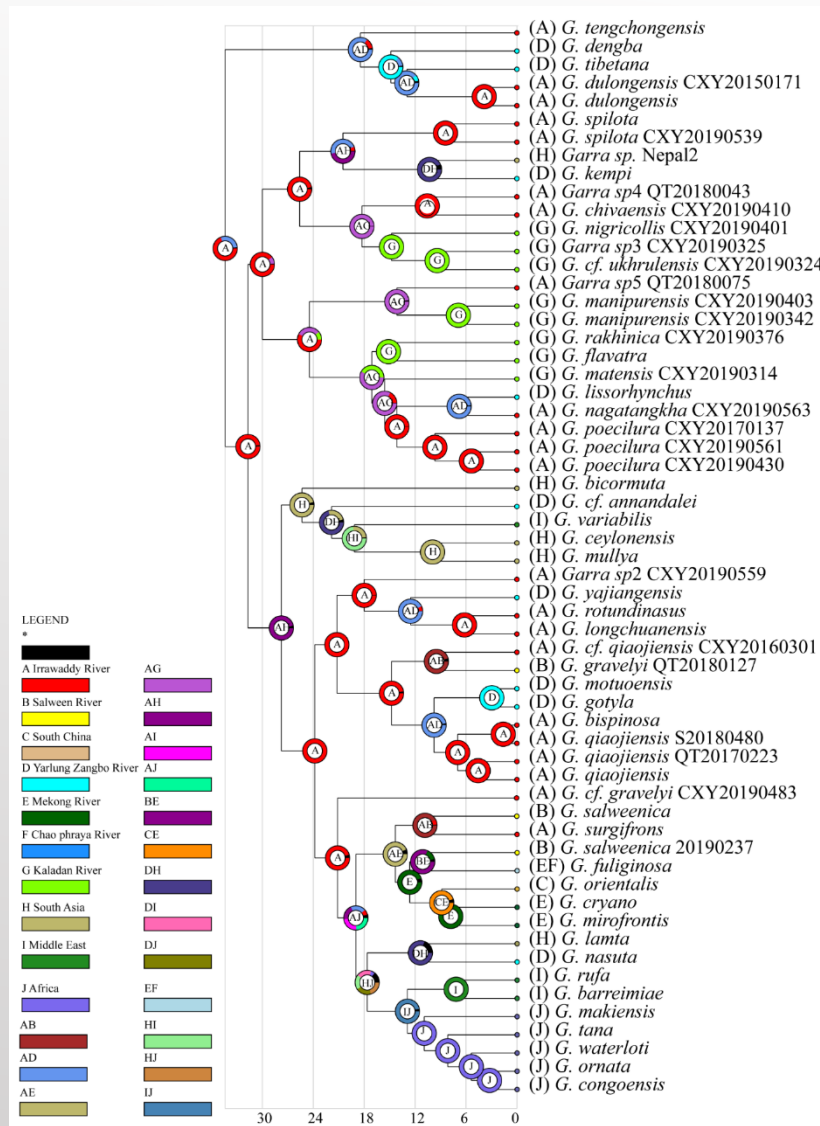
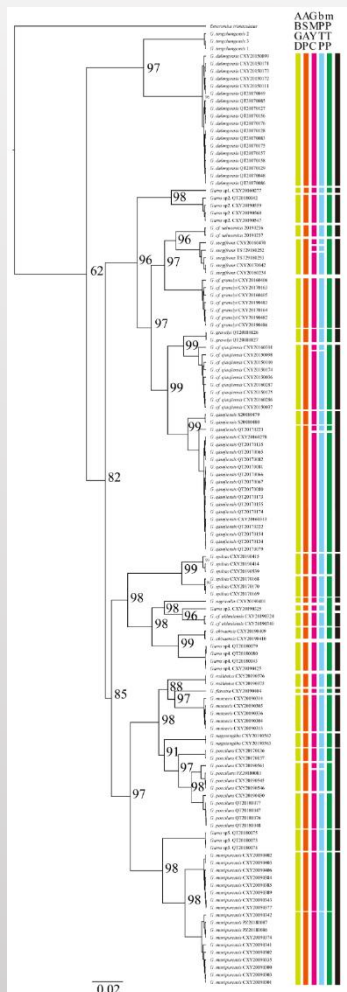


杂斑spilota



东南亚墨头鱼属的系统发育、多样化与生物地理学

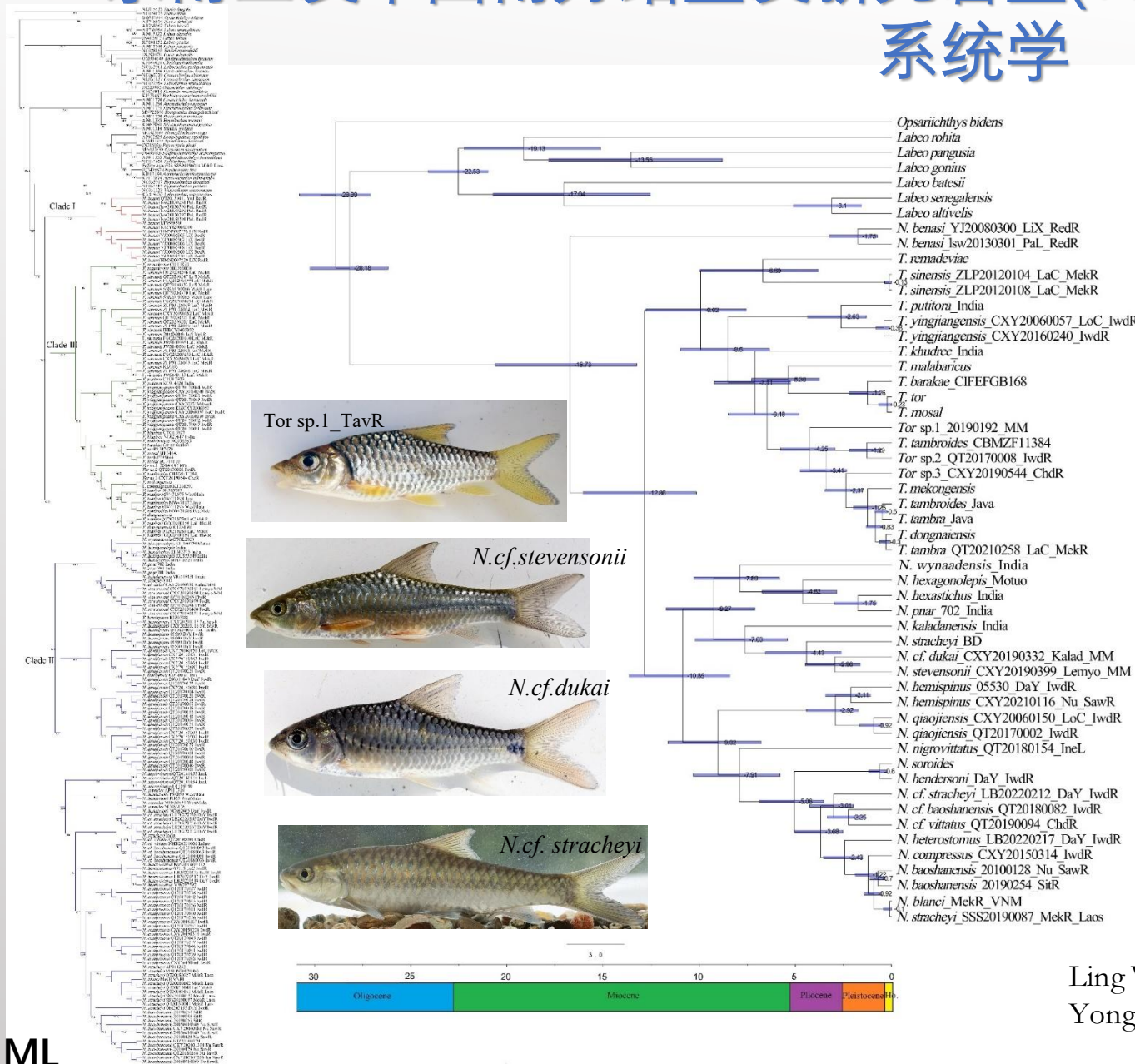
- 7 genes
- Identified 26~30 species



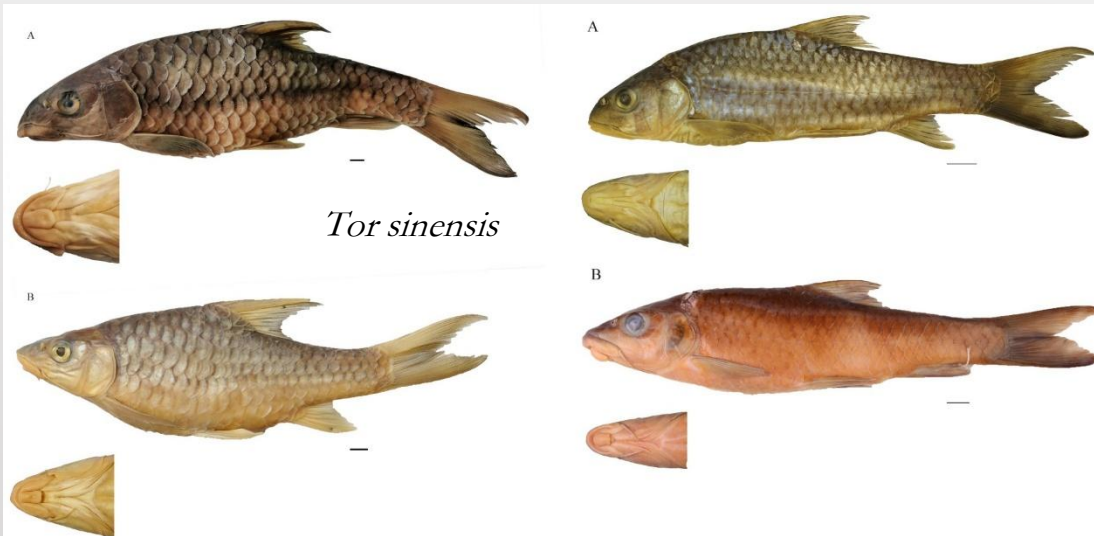
东南亚及中国南方结鱼及新光唇鱼(*Tor* & *Neolissochilus*)的分子系统学



WU Ling
2020



- *Tor* is a monophyletic group, *Neolissochilus* is not, *Neolissochilus benasi* may be a new genus
- *Tor* with 3 undescribed species/13,
- *Neolissochilus* with 4 undescribed species/17
- *T. laterivittatus* as a synonym of *T. sinensis*
- *T. dongnaiensis* as a synonym of *T. tambra*

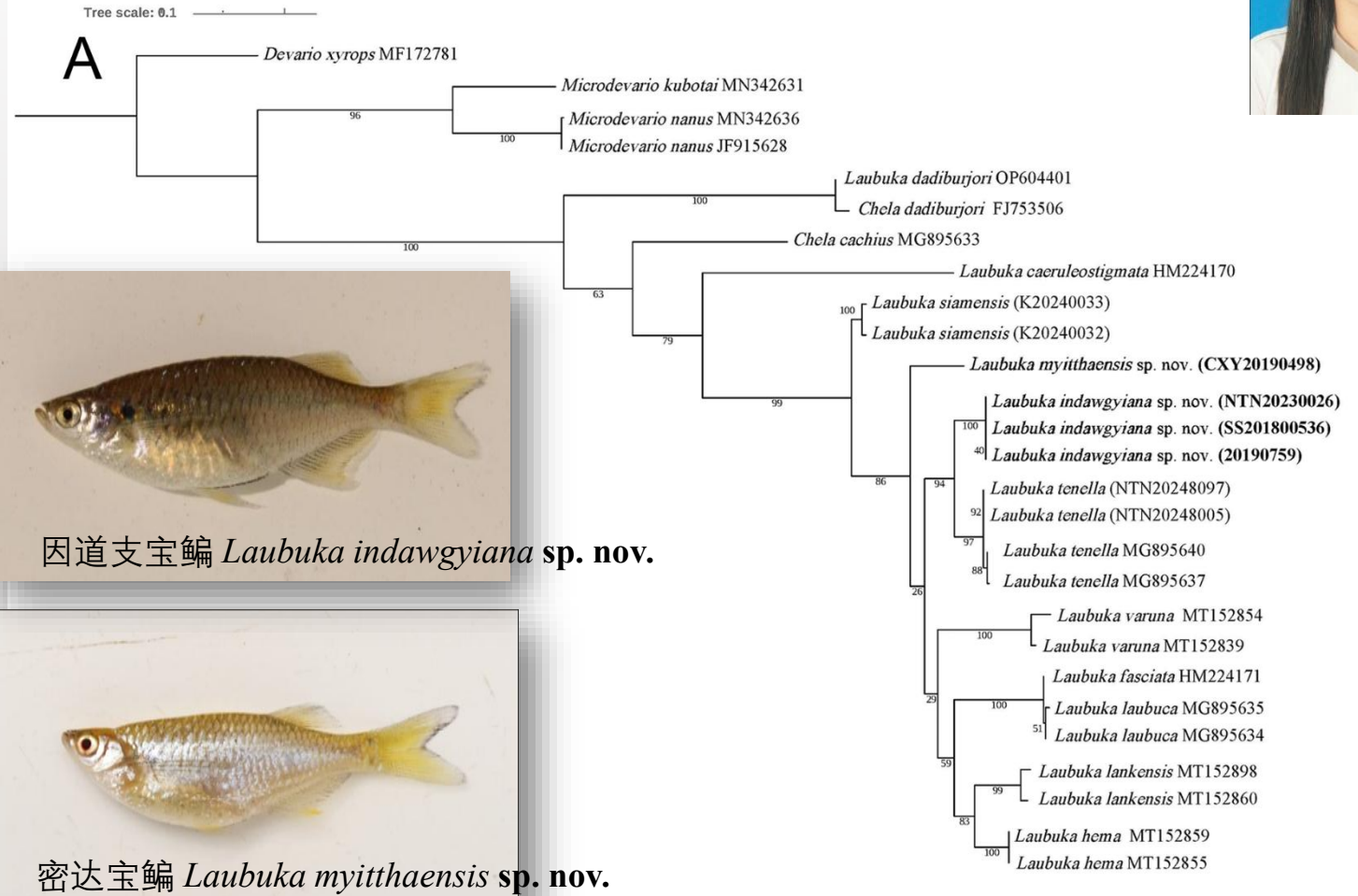
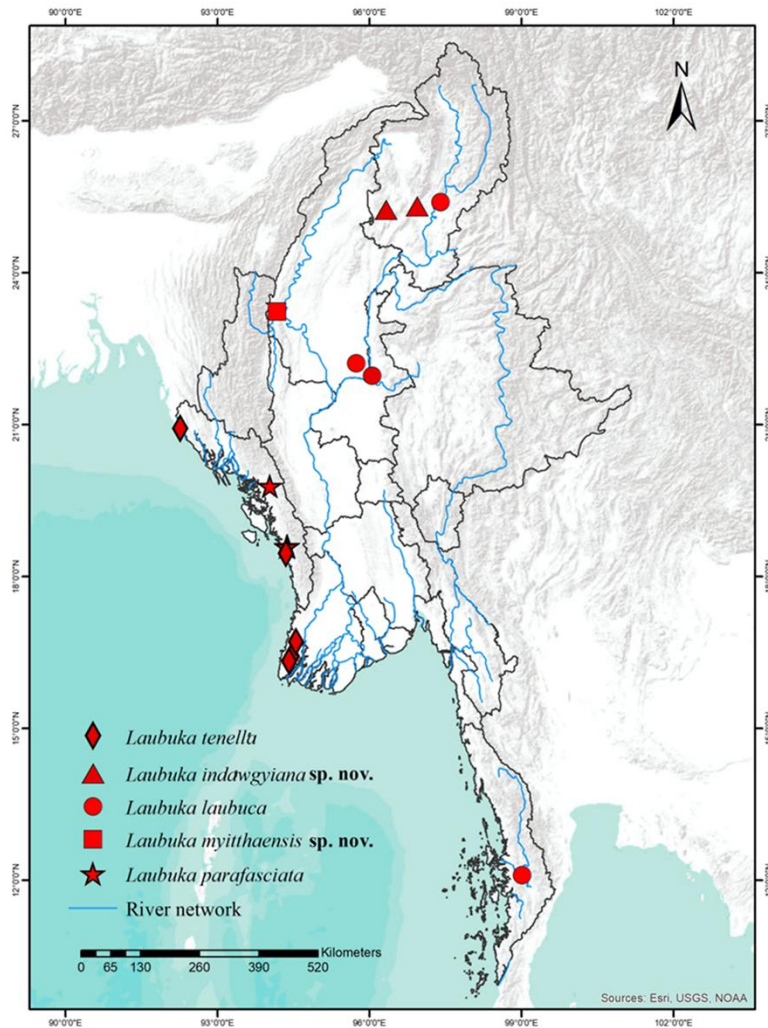


Broad trophic polymorphism in *Neolissochilus qiaojiensis*

Ling Wu, Tao Qin, Huy Duc Hoang, Thaung Naing Oo, Xiao-Ai Wang*, Xiao-Yong Chen*. 2024. *Journal of Zoological Systematics and Evolutionary Research*

缅甸宝鳊属 *Laubuka* 的系统整理

Khin Yadanar Htay
Master student 2018
Ph.D. student 2021



Khin Yadanar Htay, Xin-Yuan Song, Thaung Naing Oo, Xiao-Yong Chen*. 2025. A Review of Genus *Laubuka* (Cypriniformes: Danionidae) in Myanmar with Description of Two New Species. *Zootaxa* 5618 (2): 221–248



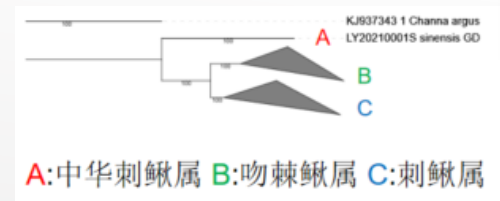
Nay Htet Naing
Master Student 2021
Research Assistant

缅甸和中国刺鳅科(Mastacembelidae) 的分类整理

- Phylogeny of 3 genera of 95 individuals
- 5 unidentified species
- Confirmed validity of *Mastacembelus triolobus*, *Mas. strigiventus*, *Macrognathus aureus*, *Mac. morehensis*
- Mastacembelus armatus* complex was divided into 6 species



LIANG You
2019

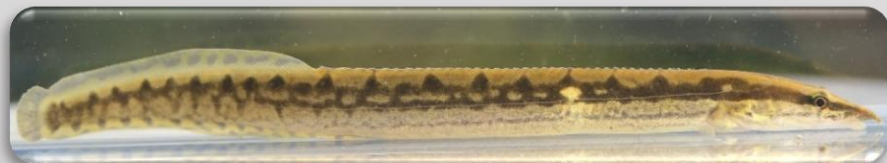


Sinobdella - *Macrognathus* - *Mastacembelus*



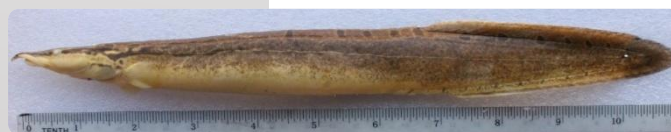
Mastacembelus (2 fingerlike projection)

Macrognathus (8-6 fingerlike projection)



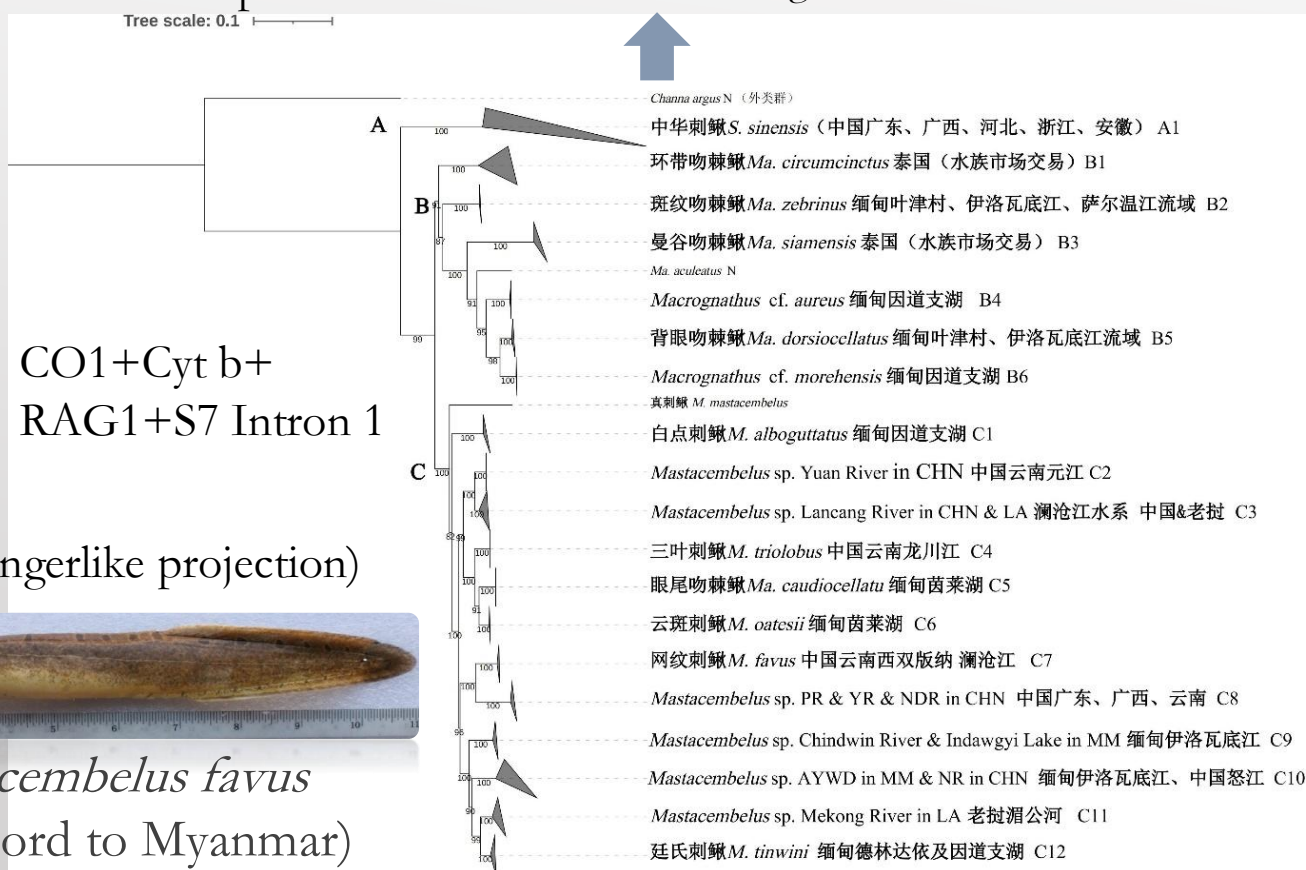
Mastacembelus sp. nov.

Irrawaddy, China & Myanmar

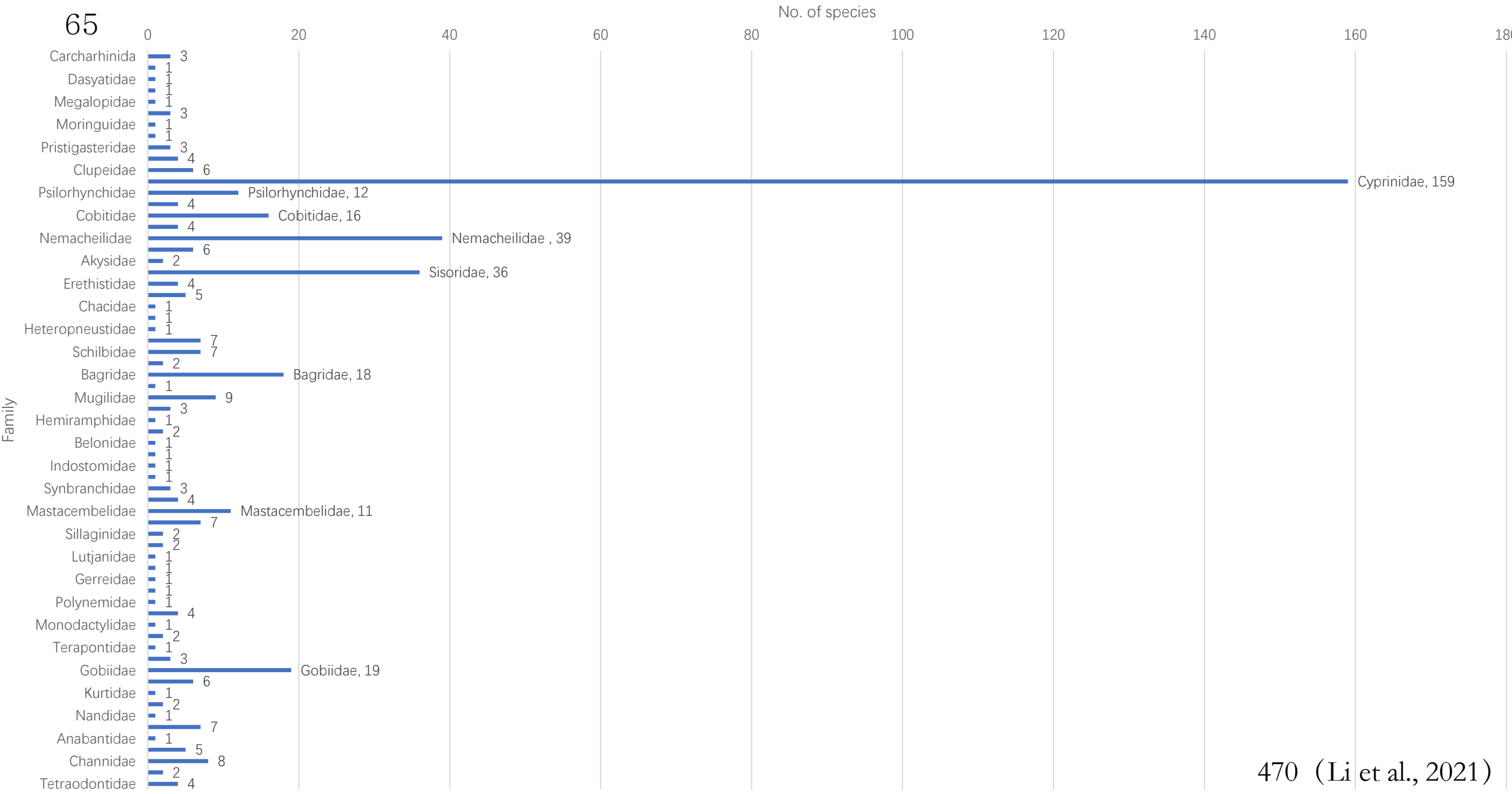


Mastacembelus favus

(new record to Myanmar)



No. of fish species per family in Irrawaddy

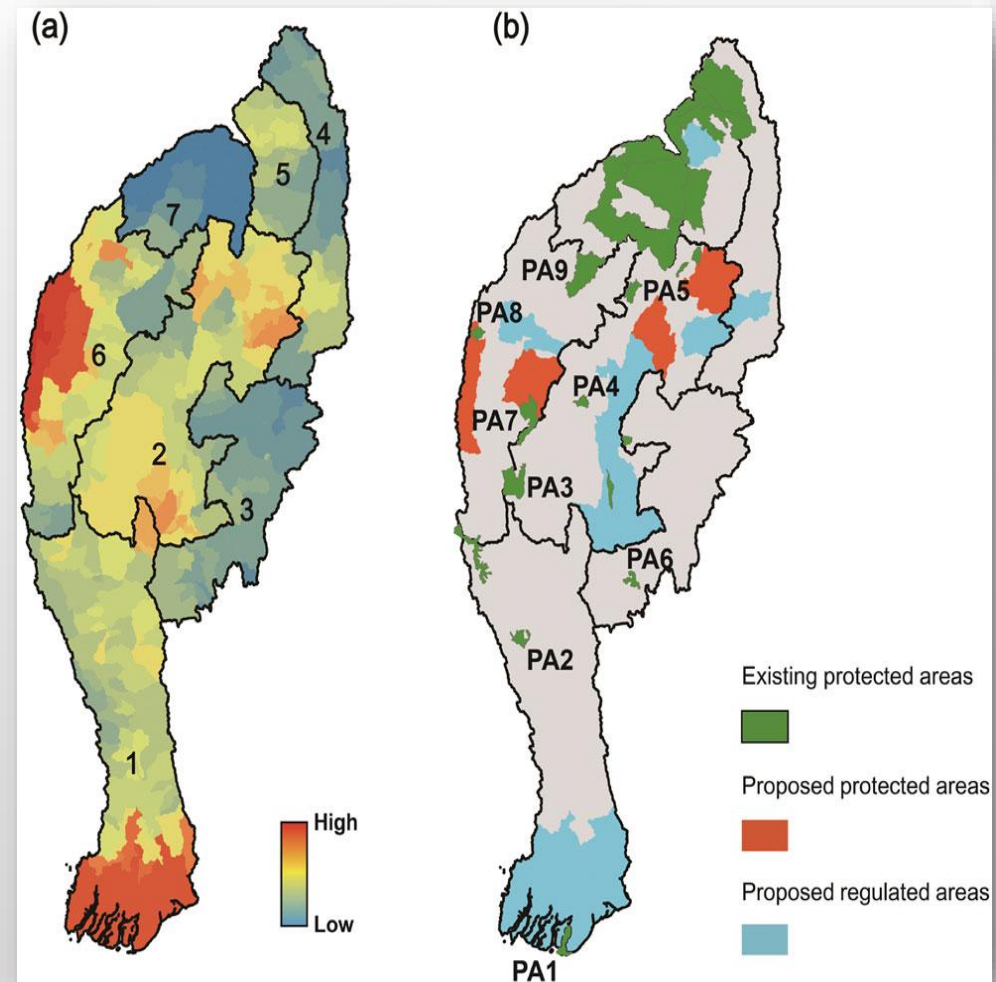
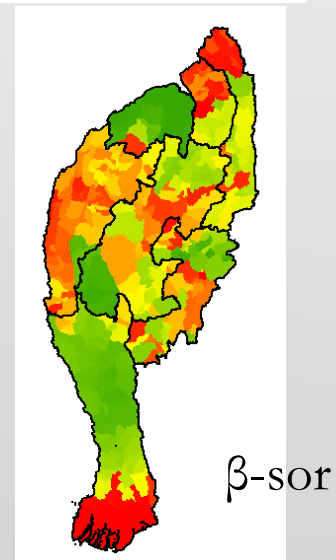
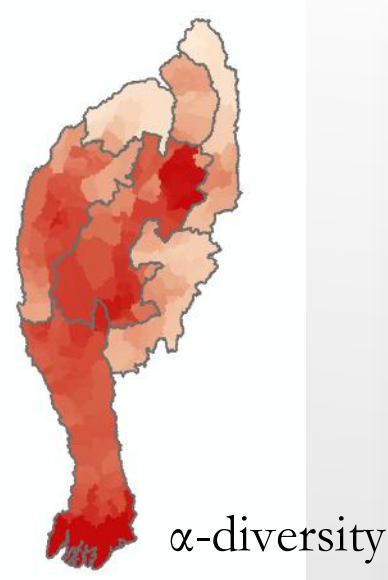
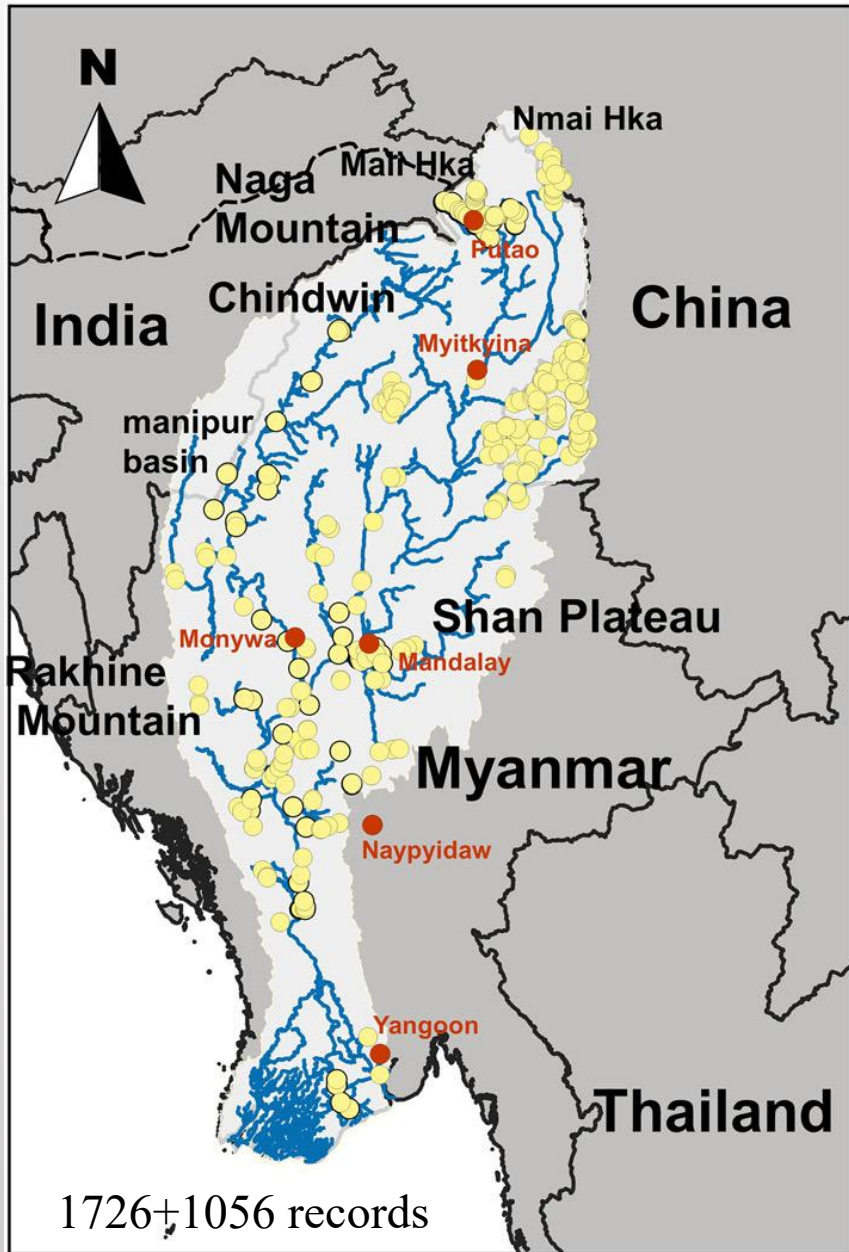


伊洛瓦底江鱼类多样性与分布格局



LI Yan-Zhi
2017

538 sub-
basins



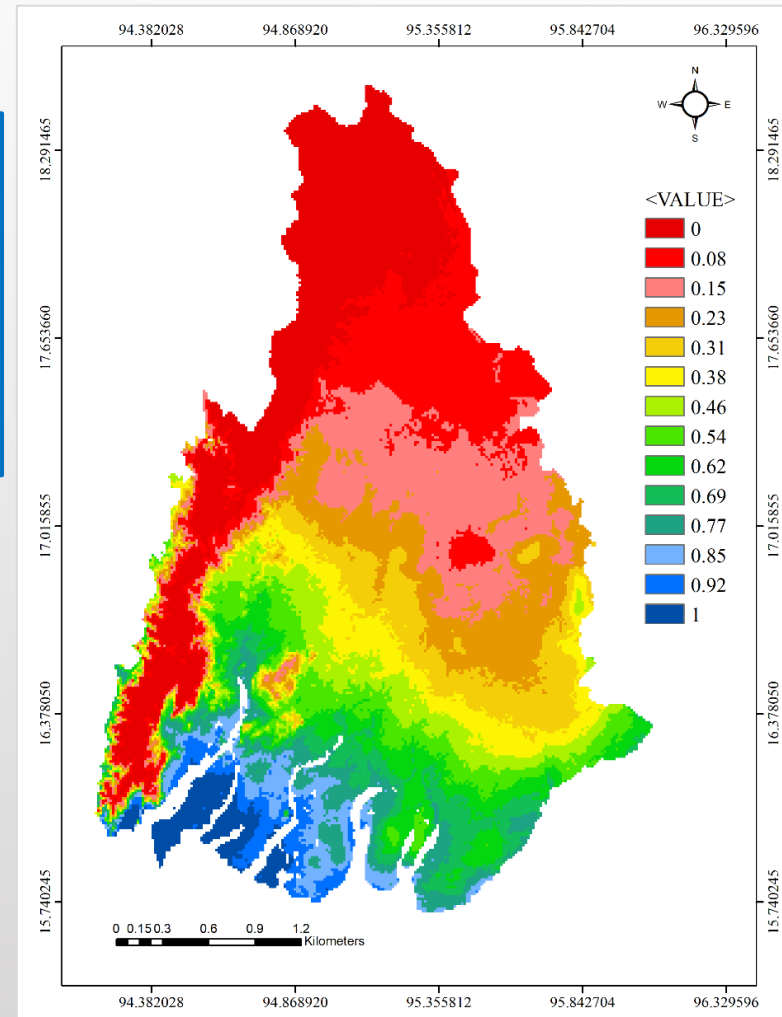
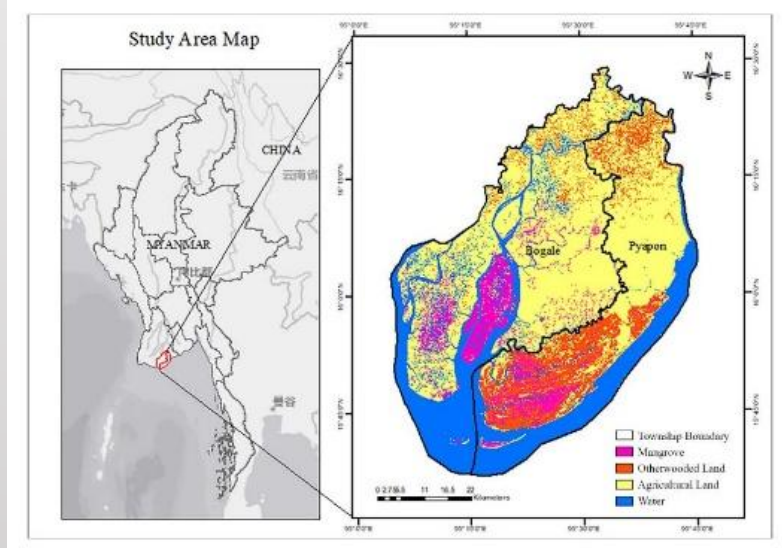
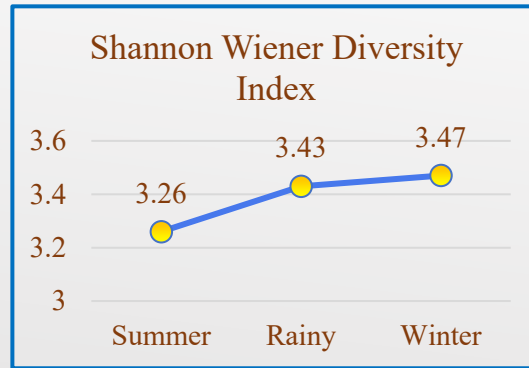
Li Yanzhi, Qin Tao, Ye Yint Tun, Chen Xiaoyong*. 2021. Fish of the Irrawaddy River: diversity and conservation. *Aquatic Conservation: Marine and Freshwater Ecosystems*

缅甸伊洛瓦底江三角洲典型红树林的鱼类多样性与保护

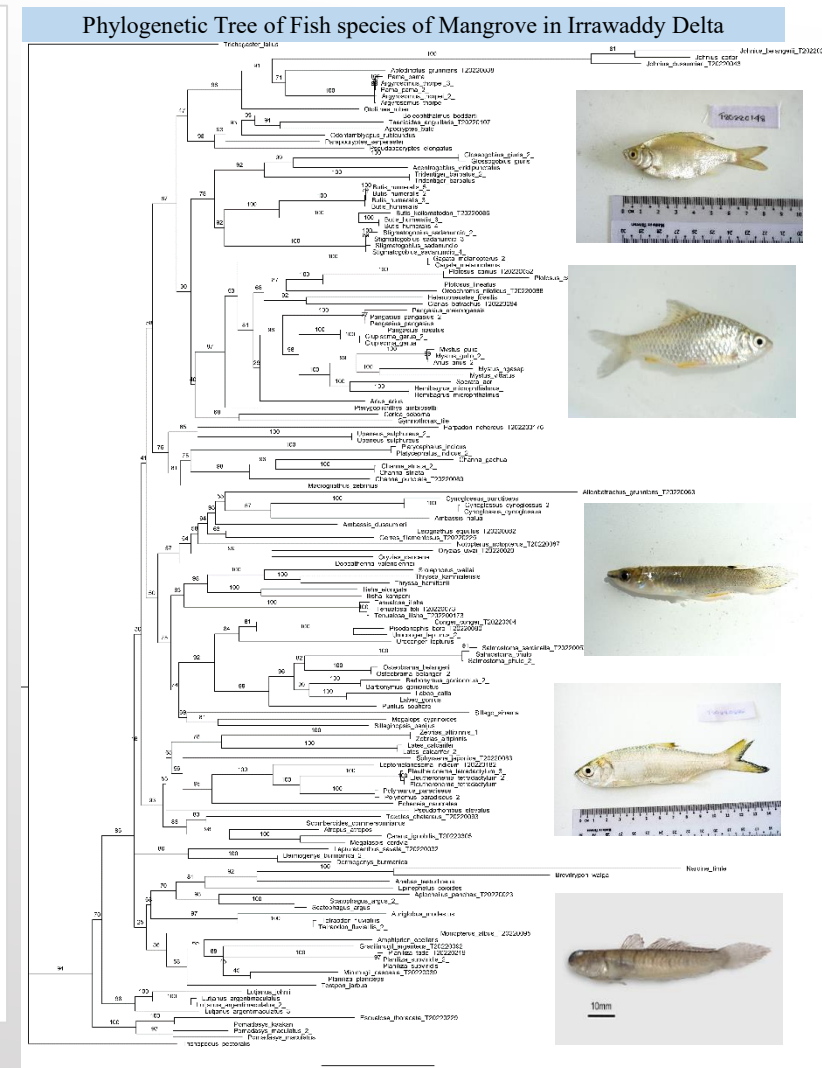
- 2022.1-2, 7-8, 11-12, Bogalay & Pyapon
- 129 species vs. 110 (Swe, 2016)



Thwin Ko Ko Tun



Suitability predicted by MaxEnt analysis



Boleophthalmus boddarti



butis humeralis



Butis koilomatodon



Odontamblyopus rubicundus





致谢



Dr. CHEN
Jin



Dr. YANG
Yongping



Dr. YAO
Yonggang



Dr. Maurice Kottelat



Dr. Larry Page



Dr. Chavalit Vidthayanon



- Southeast Asia Biodiversity Research Institute, Chinese Academy of Science (Y4ZK111B01)
- Yunnan International Joint Laboratory of Southeast Asia Biodiversity Conservation (202203AP140007)
- Transboundary cooperation on biodiversity research and conservation in Gaoligong mountains (E1ZK251)
- Lancang-Mekong Cooperation (LMC) Special Fund (Biodiversity Monitoring and Network Construction along Lancang - Mekong River Basin project)

