

INTRODUCTION

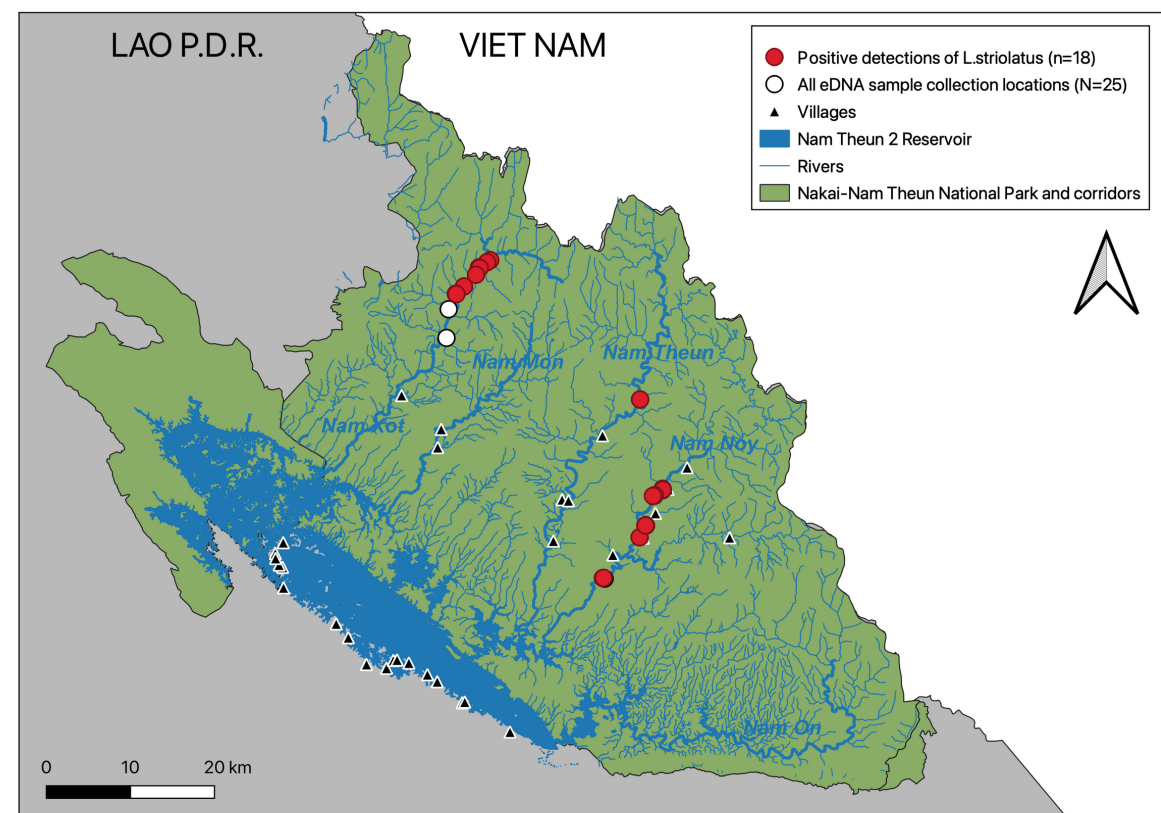
- *Luciocyprinus striolatus* is a species of **cyprinid native to parts of Laos and China** (but **already extinct from China**).
- **Laos** is the **only country where the species can be protected**
- Listed as **Endangered** on the IUCN Red List of Threatened Species
- The abundance of the species is **rapidly declining**. The **main threats** on the species include **hydropower development**, **climate changed-induced droughts**, use of **destructive fishing gear**, **overfishing of their prey**



METHODOLOGY

- A **pilot project** implemented in **2022-2023** to understand the **distribution, life cycle, and threats** of *Luciocyprinus striolatus* in **Nakai-Nam Theun National Park** to develop future conservation plans
- Project **objectives**:
 - Assess the **threats, presence/absence, distribution, movements, and life-cycle** of the species in **Nakai – Nam Theun National Park**
- **Main activities**:
 - **Environmental DNA water samples** collected in Nam Theun, Nam Theun, Nam Noy
 - Individual **fish tagging**
 - **Water quality assessment**
 - **Interviews** with local communities
 - Qualitative **assessment of threats** on the species

Locations of the 25 water samples collected in Nakai-Nam Theun National Park in 2022-2023 for the detection of *Luciocyprinus striolatus*



MAIN FINDINGS

- **72%** of the water samples collected **detected** *Luciocyprinus striolatus* (18 samples) from **Nam Xot, Nam Theun** and **Nam Noy**
- **Three individual fish** were **captured-tagged-released from Nam Theun**: no recapture of these individuals was reported from local fishers
- A total of **11 recordings of water quality** parameters along the **Nam Theun** and **Nam Noy**: average **water flow** = 0.3-0.9m/s; **water temperature**=12.58-21.8°C; **pH**=5.72-8.03; **dissolved Oxygen (DO)**=10.15-14 mg/L; **conductivity**=130-291mS/cm
- The **main threats identified** on the population of *Luciocypronus striolatus* in Nakai-Nam Theun National Park:
 - **Fishing of the species (as a target species or by-catch)** by local villagers for subsistence food and/or local trade
 - **Depletion of prays of *Luciocyprinus striolatus*** as a result of **over-fishing** and **unregulated fishing** by local communities for subsistence food and/or local trade
 - **Catch-and-Release tourism attraction and promotion within the national park** (without prior impact assessment and management plan)
 - **Seasonal droughts**
 - A **lack of awareness** on the species' conservation value by local communities and local authorities
 - A **lack of conservation plan** for the species in the national park

TAKE AWAY MESSAGES & RECOMMENDATIONS

- *Luciocyprinus striolatus* is **under threat** at **all locations in Laos**: Nam Pak in Oudomxay Province, Xay Champhone in Bolikhamxay Province and Nakai-Nam Theun National Park in Khammouan Province.
- **Nakai-Nam Theun National Park represents the best location in the world for the long-term conservation of the species.**
- Recommendations for the protection and conservation of *Luciocyprinus striolatus* in **Nakai-Nam Theun National Park**:
 - **Set up community-based Fish Conservation Zones** within the national park targeted at *Luciocyprinus striolatus*
 - **Follow-up study** to understand the **reproduction cycle** of the species in Nakai-Nam Theun (including key locations of reproduction and spawning)
 - **Avoid the practice of catch-and-release sport fishing** in Nakai-Nam Theun National Park
 - **Before authorizing and promoting** catch-and-release practice in Nakai-Nam Theun National Park, **conduct an impact assessment and management plan**
 - **Develop community-based ecotourism tours to observe the species in its natural habitat.** Ecotourism must benefit the local communities to ensure their involvement in the protection of the species
 - **Conduct awareness raising for local authorities and local communities** on the conservation value of the species