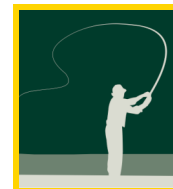


## TAIMEN CONSERVATION FUND – SCIENTIFIC RESEARCH TEAM

### Management of Recreational Fisheries



#### Key Points

Spawning is a critical life history stage for taimen and requires special protection

Taimen spawning occurs in spring when water temperature reaches 6 – 8 C. Spawning date varies widely within Mongolia

We propose a series of management zones with unique fishery opening dates for Mongolia

#### Related Issues

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## Taimen Fishing Seasons

Conserving populations of sensitive fish species such as taimen requires implementing protective measures such as protecting habitat and minimizing mortality of adult fish. Successful reproduction is also essential for the species. Thus, it is important to fully protect the species during the spawning period to allow the species to reproduce without being disturbed. Even catch-and-release angling is disruptive to fish during the spawning period. Only after taimen spawning has been completed should catch-and-release fishing be allowed.

Based on the above, a critical question is: “When do taimen spawn in Mongolia?” Little is known about taimen spawning and reproduction, though we know that they spawn during spring, and that spawning dates differ widely depending on the location in Mongolia. For example, taimen spawn in early June in the Darhat region, but in mid May in the Eg-Uur region. Spawning dates also vary from year to year, depending on weather and when the streams warm. Current Mongolian fishing regulations allow fishing only after June 15<sup>th</sup>. If the goal of this regulation is to protect taimen during spawning, this opening date (the date after which fishing is allowed) is highly protective of taimen spawning. The downside is that it unnecessarily prohibits low-impact catch-and-release fishing for a very long period after taimen are finished spawning in many parts of Mongolia. Having different opening dates for different soums/aimags would be a better way to protect taimen during the spawning period.

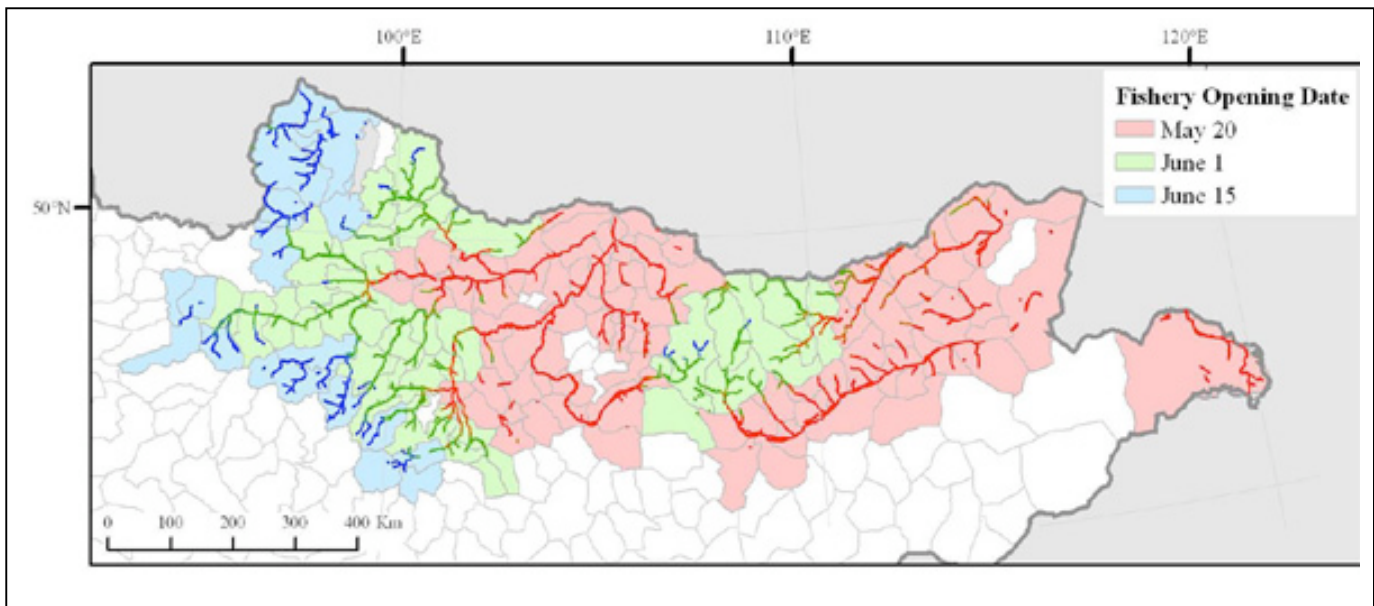
### When should angling be allowed?

We conducted a study to estimate spawning dates for taimen in all parts of Mongolia that support this species. Taimen spawning is initiated by the warming waters in spring, and research indicates that taimen spawn when water temperatures reach 6-8 degrees C (Holcik 88). We used water temperature and climate data and mathematical models to estimate the date in which water temperature reaches this temperature. We estimated this for all potential taimen rivers in Mongolia. We call this date the ‘estimated spawning date’ for a location. Estimated spawning date varies widely in Mongolia, with dates as early as May 1 in lowland areas of northern Mongolia, to as late as June 20 in the Darhat and other high elevation areas (map on back page).

This regional management approach is intended to balance taimen and human needs by protecting taimen during the reproductive period, while still allowing a post-spawning catch-and-release fishery, an activity which benefits local economies and generates revenue. Our view is that a catch-and-release fishery is compatible with the long-term conservation of fisheries resources, provided that correct catch-and-release methods are employed and populations are fully protected during the reproductive period.



## Fishing Seasons (continued)



In warmer regions of Mongolia, taimen are finished spawning early, and fishing can be allowed earlier in the year. In high-elevation, colder areas, taimen finish spawning later, and a later opening date is required to protect spawning. Based on our analysis, we recommend the designation of three fisheries management areas, with fishery opening dates of May 20, June 1, and June 15. After the opening date, catch-and-release fishing for taimen can be allowed and would not have impacts on spawning and reproduction.

### References:

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## Management Recommendations

1. Based on this information, we recommend a series of management areas that differ in their opening dates. We recommend the adoption of a national set of taimen fishing regulations that establishes three taimen management zones with opening dates of May 20, June 1, and June 15 (Fig. 2).
2. This regional management approach is intended to balance taimen and human needs by protecting taimen during the reproductive period, while still allowing a post-spawning catch-and-release fishery, an activity which benefits local economies and generates revenue.
3. Our view is that a catch-and-release fishery is compatible with the long-term conservation of fisheries resources, provided that correct catch-and-release methods are employed and populations are fully protected during the reproductive period.