

First habitat restoration of the Nile Softshell Turtle in Antalya, Turkey

Located within the boundaries of Manavgat district, Ilica Stream represents a critical habitat for the Nile softshell turtle (*Trionyx triunguis*), a species with limited distribution in Turkey. Due to its dependence on freshwater ecosystems and its restricted range, this species is considered vulnerable and in need of active conservation efforts. In line with this, a nest site restoration project was carried out in spring 2025 to improve reproductive success and create a more suitable nesting environment for Nile softshell turtles.

Site Preparation and Restoration Process

As part of the project, physical restoration was undertaken in a designated potential nesting area along the stream. Initially, sand accumulated within the water body was carefully removed and transported out of the site. This step was essential both for improving water flow and for restoring the natural structure of the nesting area.

Following the cleaning phase, the terrain was leveled to create a flat, suitable substrate for nesting. A carefully selected layer of sand, with appropriate grain size for turtle nesting, was then spread over the surface. This sand layer is intended to facilitate egg-laying and help maintain the appropriate moisture and temperature conditions necessary for embryo development.

Protection Measures

Once the restoration was complete, the nesting site was enclosed with wire fencing to protect it from external threats. This measure was implemented to prevent disturbance from predators as well as human-related pressures such as visitors, pets, or vehicles. The placement of the fencing was designed to ensure accessibility for turtles while minimizing disruption to natural processes.

Breeding Season and Expectations

Nile softshell turtles typically begin mating in March and April. Following successful fertilization, nesting usually begins towards the end of May. Therefore, the first nesting activity in the restored site is expected in the coming weeks. The area will be regularly monitored during this period, and any nesting activity will be documented.

Conclusion and Evaluation

This restoration project represents a significant step towards supporting the Nile softshell turtle population in Ilica Stream. By enhancing the nesting habitat without interfering with the species' natural life cycle, the project serves as a strong example of applied conservation biology in the field.

Such habitat management efforts not only support the target species but also contribute to the broader preservation of ecosystem integrity. In the coming months, monitoring data will be used to evaluate the effectiveness of the restoration site and determine whether additional protection or management actions are required.



Photo 1. Field view before restoration



Photo 2. Field view before restoration



Photo 3. Working status



Photo 4. Working status



Photo 5. Working status



Photo 6. Working status



Photo 7. sand cleaning



Photo 8. sand cleaning



Photo 9. latest status of the restoration



Photo 10. latest status of the restoration



Photo 11. Fence building



Photo 12. Fence building



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