

By Koen Boogaerts & Floris Visser, studbook coordinators



Goal: filling the Ark of Noah

The goal of this studbook is filling the Ark of Noah with a representative group *Testudo hermanni hermanni*, suitable for breeding for reintroduction programs. So ex situ conservation with respect for local genetic footprints.

A second goal, more or less facing reality, is breeding *Testudo hermanni hermanni* with respect for localities (genetic footprints), to meet a certain market demand to specific localities – hoping to lower the degree of illegal withdrawal of animals from nature.

Geographical entities and localities

The studbook distinguishes six entities, twelve localities and more than thirty sublocalities. This with the intention of preventing hybridization by crossing animals with different backgrounds. The table shows the entities, localities and sub-localities.

Entity	Locality	Sub-localities
Mainland Spain	Albera	-
Mainland France	Var	-
Mainland Italy	Tuscany	Coastal, Inland & "Umbria"
	North-East	"Gulfo di Triest", "Marche"
	Campania	Coastal, Inland, "Roma"
	Puglia	"Molise", "Gargano", "Murgia", "Taranto Gulf", "Basilicata"
	Calabria	"Calabro-Crotone", "Aspromonte"
Islands Italy	Sicily	"Nebrodi", "Madonie", "Ragusa", "Mt. Etna"
	Sardinia	"Sassari-Alghero", "Costa Rei"
Islands France	Corsica	"Ajaccio", "Elsewise"
Islands Spain	Menorca	"North", "South"
	Mallorca	"North-West", "South-East"

We are aware that it is not certain that there are actual genetic or morphological differences between all named localities. Pending further genetic research, however, keeping the localities (and sub-localities) separate seems to be a necessary step forever to be able to breed for reintroduction purposes.

Studbook keepers

We have initially started with the studbook on the 1st of January 2019 and till date we have 157 animals across 19 studbook participants across 6 countries. In our opinion this is a great start but the purpose is to have a decent amount of genetically healthy animals across all localities and sub-localities. So should you have any animals which are not registered yet, please do contact both Koen or Floris in order to register your animals.

What do we expect from studbook keepers?

In order for us to maintain the studbook up-to-date, it would be very much appreciated that as studbook keeper you will keep us informed by sending us an email or any other preferred communication channel such as FB Messenger, WhatsApp etc.

- Deceased animals including their chip numbers
- Offspring; preferable with the chip-numbers of the mother and father
- Sold or transferred animals. *We will appreciate should you be inclined to sell off animals, to offer them to the studbook coordinators first. Following this process might allow us to keep animals within the studbook.*

As studbook coordinators, we will be sending out updates regarding the studbook as well as everything that might be interesting for the studbook on a quarterly basis. Accessible genotyping of animals, updates on studbook animals, interesting research, etc.

One of the aspirations is that all studbook participants including the studbook coordinators will have an open and transparent attitude. Nevertheless, we all share the same passion so transparency when it comes to sharing pictures of animals, asking for questions, physical admiring of animals and enclosures should, learn from each other should all be topics that all of us should be open to.

What next?

The next step for the coordinators will be to approach keepers with specimens not yet registered in the studbook of localities whom are not yet or have very low representation levels in order to build healthy 'insurance colonies'. At this moment we still are looking for specimen of all localities.

Studbook participants are encouraged to help by coming forward with known contact of individuals that keep and or breed the underrepresented localities.

Genotyping

Both coordinators are in the process of genotyping their own stock. Contacts have been made with the universities holding a significant dataset as well as a renowned reptile vet that will pull all samples to understand the process and what exactly needs to be done as well as understand the entire process in order to make this process available to all participants.

Once the results are final to us, we will update all participant with a process map that will show an easy and accessible way of defining clusters to obtain certainty about localities. More to come!

Final word

We all hope that you will become active participants and one of the most important aspect of this studbook is also to learn more regarding this beautiful subspecies. We can all learn from each other so should you have any feedback, recommendations, interesting research or any idea that might help us improve this studbook or the animals itself. Please do not hesitate to contact us.

Thanks & happy hatching!

Kind regards,

Koen Boogaerts & Floris Visser

