

AZA Radiated Tortoise SAFE

- Partnership with Turtle Survival Alliance



Rick Hudson, President Emeritus, Turtle Survival Alliance

Confiscation to Reintroduction Strategy – 4 primary components

- Enforcement and trade seizures
- Rescue and Rehabilitation
- Community Engagement
- Reintroduction – AZA SAFE



The Radiated Tortoise (*Astrochelys radiata*)

🐢 **Iconic symbol of southern Madagascar**

🐢 **Once one of the most abundant tortoises on earth**

- Estimated historic population of ~12 million

🐢 **Rampant poaching for bushmeat (adults) and international pet trade (juveniles) has decimated populations**

🐢 **Rate of decline has been *catastrophic***







POACHING SYSTEMATIC EXTERMINATION

- 🐢 Poaching is driving **systematic extermination** across range
- 🐢 >75% historic population decline
 - **50% in past 15 years**
- 🐢 At current rate of decline, **functional extinction** of wild population possible in 20 years
- 🐢 Poaching surged in 2015 and then **peaked in 2018**







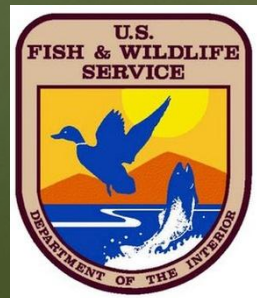
Enforcement

Community informants work closely with Gendarmes to disrupt poaching camps and networks.

Represents paradigm shift in cooperation

Two regional enforcement coordinators

USFWS supported



Toliara, Madagascar: Over 10,000 Radiated Tortoises seized in a single house—the largest in history

- TSA's finest hour: deployed 7 teams of “wildlife warriors” from April – July
- Response made possible by incredible outpouring of support from international zoo/aquarium community, sending ~70 staff, funding, and 700 kg of equipment
- **Over 500 donors and 70 global organizations**







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THE BIG POACHING YEAR October 2018

 **October 2018: a second confiscation of more than 7,000 Radiated Tortoises—bringing the total to over 17,000**

Just when you thought things couldn't get worse!!

- The Lavavolo Tortoise Center (LTC) literally “rose out of the desert” in 2018 and today supports over 16,000 tortoises
- TSA’s other major facility – Tortoise Conservation Center - holds over 9,000, **bringing total to more than 25,000 tortoises under TSA care**, requiring ~50 staff

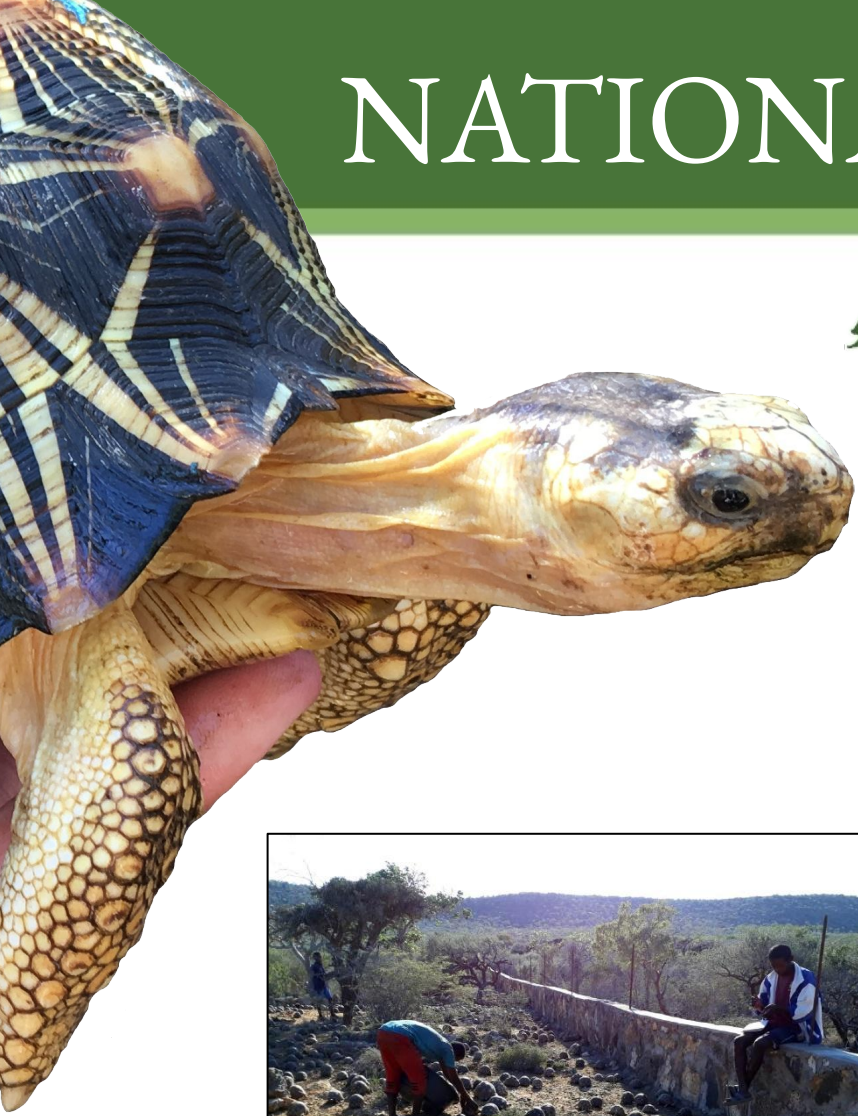


Rescue and Rehabilitation

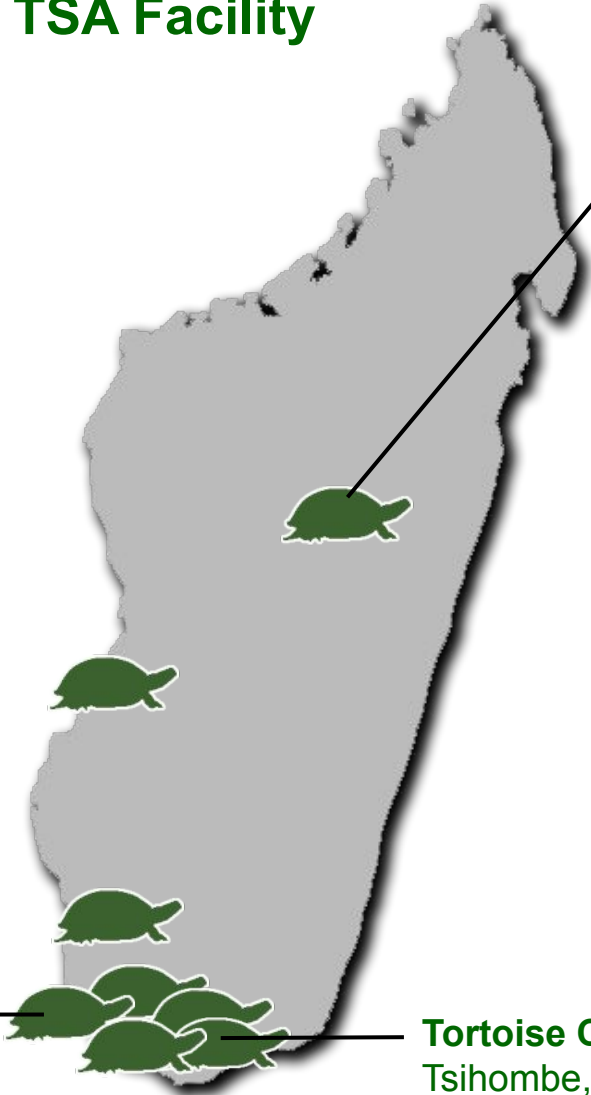
The demands of caring for 25,000 tortoises is intense, expensive and requires the support of local communities



NATIONAL FOOTPRINT



 **TSA Facility**



TSA – Madagascar Headquarters
Antananarivo, Capital of Madagascar



Lavavolo Tortoise Center
Lavavolo, Atsimo-Andrefana Region

Tortoise Conservation Center
Tsihombe, Androy Region



CONFISCATION TO REINTRODUCTION

Confiscation to Reintroduction Strategy launched February 2020

- Pre-release health evaluations by TSA, St. Louis Zoo, and WCS
- 1,000 tortoises selected and isolated at TCC for reintroduction
- Onset of COVID delayed activities for a year





2021- First SAFE grant - *Developing a Reintroduction Strategy for Radiated Tortoises*

- *Two community-protected forests and 3,000 tortoises successfully repatriated*
- *Soft-release strategy employed: 6 month pre-release penning*
- *Radio-telemetry and GPS tracking demonstrated strong site fidelity after full release*
- *Two communities engaged to patrol and monitor forests and tortoises*

2023 – Second SAFE grant will demonstrate the long-term impact of community engagement on population survival

Soft Release – to instill site fidelity at reintroduction site

Transfer to pre-release enclosures within community-protected forests

6 months penning has proven effective - two years post-release





Reintroduction



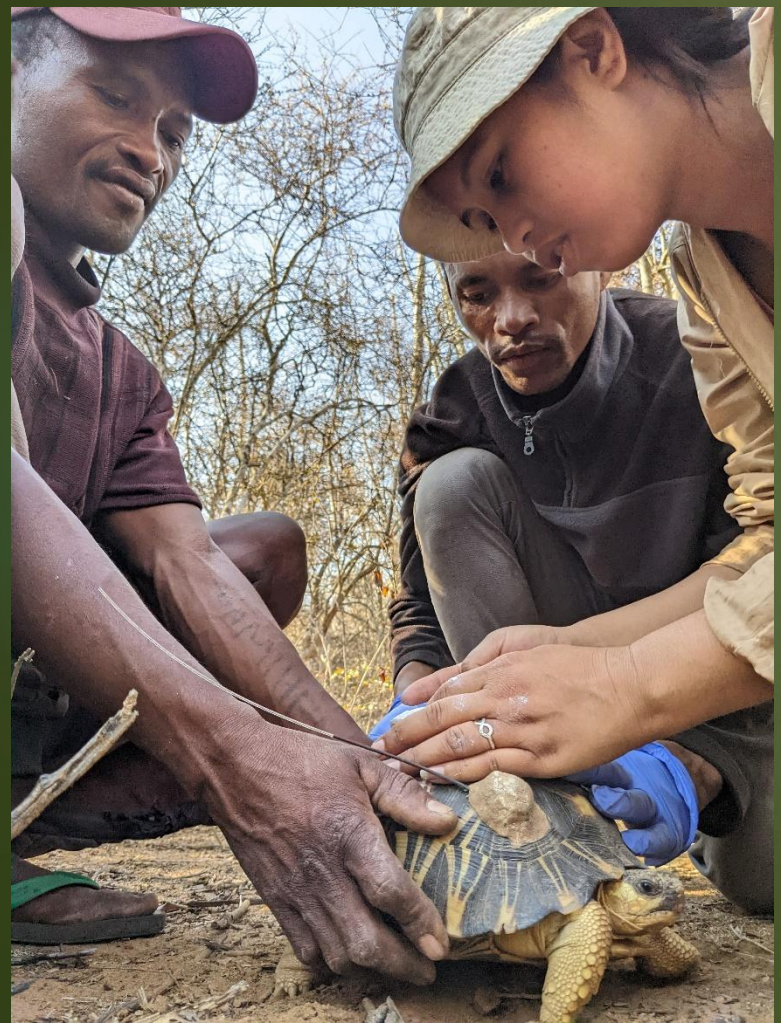
Tortoises monitored to gain valuable post-release data

- Lance Paden (L) and Brett Bartek attached radio transmitters and GPS data loggers to a subset of tortoises for intensive monitoring
- 1,000 tortoises released in 2021, followed by another 1,000 in 2022 and 2023 – 2 sites
- Goal is to **confirm that *soft release* is an effective technique** for encouraging site fidelity in translocated Radiated Tortoises





Since 2021 – with AZA SAFE support – 3,000 tortoises have been reintroduced into two community protected forests



Downloading temperature data in the field



Capacity Building – reintroduction and monitoring techniques are being shifted to local staff and community members



Community Engagement – begins optimally 1 year prior to bringing in tortoises

- 1) Training – tortoise monitoring, enforcement and forest management techniques
- 2) Establishment of protected forest boundaries
- 3) Building schools
- 4) Alternative livelihoods

The battle to save the Radiated Tortoise will be won, or lost, at the community level.









Conservation Values



- 1) **Collaboration:** internal and external partnerships include USAID, USFWS, Madagascar National Parks, DREED (Ministry of Forest & Environment) and AZA SAFE institutions
- 2) **Community Engagement:** 3 communities in two regions provide support and are realizing the benefit of protecting forests for tortoises
- 3) **Innovation:** advances in reintroduction site ID and community engagement
- 4) **Scientific Contributions:** at least 5 publications planned on tortoise movements, home range, stocking density, etc; demonstrated the effectiveness of soft-release on site fidelity in Radiated Tortoises
- 5) **Lasting Impact:** a model for successful rewilding of Radiated Tortoises; established new tortoise populations in community protected forests and keeping communities engaged

THEIR FUTURE IS IN OUR HANDS

