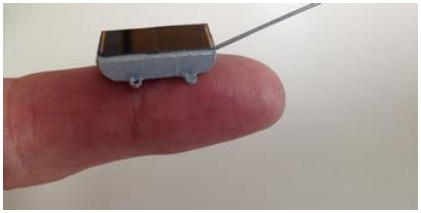
ICARUS - Tracking system

Reference: TD-DE-1017

TECHNOLOGY DESCRIPTION

ICARUS is a system for global tracking of animal migrations. Utilising miniaturised transmitters attached to animals, data on their migrations can be collected and transmitted to the International Space Station (ISS). This information is registered in a database to aid in animal protection, enhance understanding of climate dynamics and disease spread, and promote sustainable agriculture practices. The receiver/transmitter units are affixed to animals selected by researchers, equipped with GPS receivers to determine their positions.



INNOVATIVE ASPECTS

Billions of animals move across continents and borders, making continuous, long-term observation of individual small animals by researchers nearly impossible. ICARUS aims to address this challenge by analysing local and global migration patterns to gain insights into various aspects such as the spread of infectious diseases by animals like songbirds, bats, and insects, the presence probability of bird populations in specific areas, migration patterns, impacts of environmental factors on bird populations, and more. The ICARUS transmitters, which include GPS functionality, weigh just five grams each and are barely larger than a euro cent coin. Prior to ICARUS, the smallest available transmitters weighed between 15 and 20 grams.

TECHNOLOGY READINESS (in space application)

TRL 9 (2024)

COUNTRY OF ORIGIN

Germany

LATEST UPDATE

06/2024

TAGS #tracking #system #miniaturised #GPS #animal #agriculture

APPLICATION AREAS

Health | Tourism | Food & Agriculture | Data Processing, Software & AI | Safety & Security | Education & Training | Wildlife & Natural Resources

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