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Automatic Detection of the Tracks of Wild Animals in tl Remote Sensing Images and Its Use

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Abstract

While the human population continues to grow and the economy is c
is decreasing in the wake of land development, for instance. Howev
essential for humans to obtain ecosystem services. Therefore it is re
biodiversity and its sustainable development. Wildlife monitoring is i
preservation. Recently we can obtain the accurate position of wildli
Positioning System) telemetry. However the use of telemetry is allov

of wildlife. Therefore it is expected to increase the ecological knowl
constructing the system which obtains ecological information from r
We developed DTR algorithm which is for computer aided detection
snow using high spatial resolution remote sensing images. DTR algo
to find out directly the tracks by visually examination of remote sens
overlooking the tracks. This time we apply DTR algorithm to the aer
Sarufutsu in Hokkaido. And we distinguished species which left the
visual examination and discriminant analysis based on field investiga
which left detected tracks were interpreted as sika deer (*Cervus N*
according to length and width of one set of the footprints. Also we
density of target animals by applying INTGEP (Intersection Points
on Geometrical Probability) method to lengths of sika deer's tracks.
footprints from the DTR algorithm and from visually examination pr
footprints in the snow could be detected using the DTR algorithm. I
detection of the tracks in the snow in remote sensing images is possi
algorithm.

Keywords: Wild animals, tracks, DTR, INTGEP, sika deer (Cerv

[PDF (1644K)] [References]

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