A Big Earth Data Platform for Three Poles

**Dataset of detection system and triggering sensor for small vertebrates in Heshan Hilly Land Comprehensive Experimental Station of the Chinese Academy of Sciences (November 2019- May 2021)**

1、Description

This data set includes a small vertebrate detection system and trigger sensor data set deployed in Heshan hilly comprehensive test station of Chinese Academy of Sciences. The system is deployed in Heshan hilly comprehensive test station Park (112 ° 53'58 "E, 22 ° 40'39" n), with a time span (November 2019-may 2021).  
The system consists of a flexible pressure sensor array (25cm \* 25cm), a scanning circuit, a controller, a control system unit based on a mobile phone board, that is, a smart camera (driven by the trigger signal output by the pressure sensor, the camera is controlled to automatically take pictures, record and record, and upload data). A total of 72 valid and non repetitive animal photos were collected by the system.  
1. Small wild animals in the installation site of Heshan hilly comprehensive test station of Chinese Academy of Sciences. When wild animals appear on the flexible pressure sensor, the acquisition is triggered once.  
2. Data source: "development of terrestrial vertebrate monitoring equipment", 2016yfc0500104, completed by: Chengdu Institute of biology, Chinese Academy of Sciences, raw data, unprocessed.  
3. Photo data can be divided into motion trigger and static pressure trigger. The former requires the moving distance of the animal on the flexible pressure sensor to be greater than the set threshold to prevent repeated trigger when the animal is stationary; the latter refers to that the animal generates pressure on the flexible pressure sensor, that is, it is triggered all the time. This data set is the data in motion trigger mode.  
4. This data can be used to record the population number of small wild animals in a certain area (similar to the sensing trap method). Combined with the relevant data of ecological factors, it can be used to analyze the population number and circadian rhythm of small wild animals.

2、Keywords

Theme：triggering sensor,Forest,small vertebrates,Other,detection system  
Discipline：Terrestrial Surface  
Places：Heshan Hilly Land Comprehensive Experimental Station of the Chinese Academy of Sciences  
Time：2019, 2021, 2020, instantaneously trigger

3、Data details

1.Scale：None

2.Projection：

3.Filesize：30.7MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：22.7 | - |
| west：112.9 | - | east：112.89 |
| - | south：22.67 | - |

5、Time frame:2019-11-09 16:00:00+00:00--2021-05-23 16:00:00+00:00

6、Reference method

References to data:

FANG Guangzhan. Dataset of detection system and triggering sensor for small vertebrates in Heshan Hilly Land Comprehensive Experimental Station of the Chinese Academy of Sciences (November 2019- May 2021). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2718252021

References to articles:

7、Supporting project information

Innovative development of equipments and internet-of-things techniques for ecosystem monitoring and its demonstration

8、Data resource provider

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