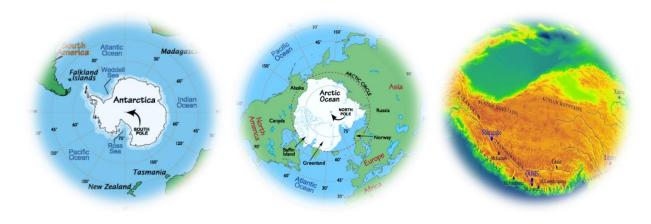
# Poles data in China



Xin Li

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## **Data Centers for Polar Data in China**

- Cold and Arid Regions Science Data Center (Lanzhou)
- Chinese National Arctic and Antarctic Data Center (Shanghai)
- Third Pole Environment Database (Beijing)

### 中国西部环境与生态科学数据中心 **Environmental and Ecological Science Data Center for West China**

随机推荐

**山科契卡尔巴西冰川**2

数据产品与服务

数据评审

数据作者

知识积累

新闻动态

关于本站

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和技部地球系统和学数据共享平台

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海戏相关位(EC) 故语位 自动气象站 土環水分无线传感器网络 計面积指数无线传感器网络

**English portal** 

http://card.westgis.ac.cn

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■ 中国西部Landsat ETM遙感数

#### 据集

#### 离线由请热门数据

1 中国1km分辨率数字高程模型

#### 数据集

- 中国1:100万植被数据集
- 黑河流域ASTER遥感影像数据

- 4 中国 1:400万植被图
- 5 黑河流域1:100万植被类型图

#### 统计

统计数据显示,目前本站:

- 元数据 756 条
- 在线数据 469.99 GB
- · 总数据 3830.44 GB
- 总注册用户 8390 人



2 3 4

#### [数据平台使用] 在线数据的下载问题

#### [FAQ] 数据是否收费?

[科学数据动态] NASA成功发射Landsat 8卫星,旨在更 [科学数据动态] 汤森路透发布Data Citation Index促进对 [科学数据动态] 郭华东院士: 人类将进入"大数据"时代 [数据平台使用] 数据中心实行新的离线服务流程 [数据中心新闻] 西部数据中心访问科技部国家基础条件 [科学数据动态] 数据共享有很多难题待解-[中国科学报]

#### 🧱 数据服务

- 最近20条离线数据服务记录

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Chinese portal

http://westdc.westgis.ac.cn

#### **Data Collections**

**WATER** 

#### Data Discovery

- By Category
- By Keyword
- By Series
- # Timeline
- # TimeMap
- # Online Data
- # Offline Data

#### Highlights

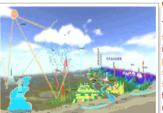


Links





- World Data System ⇒
- · WDC for Glaciology and Geocryology, Lanzhou →



DATA

**NEWS** 

#### Watershed Allied Telemetry Experimental Research

The Watershed Allied Telemetry Experimental Research (WATER) is an airborne. satellite- and ground-based integrated remote sensing experiment aiming to improve the observing ability of remote sensing technique, and understanding and predictability of hydrological and related ecological processes on catchment scale. Under the auspices of the Chinese Academy of Sciences (CAS), it was started as a CAS's West Action Plan project, and later was jointly supported by the State Key Basic Research Project "Theory and method for a synthetic retrieval of terrestrial ecological variables from both active and passive remote sensing approaches" under the auspices of the Chinese Ministry of Science and Technology of China (MOST).

Search Title & Abstract

Detail

#### News

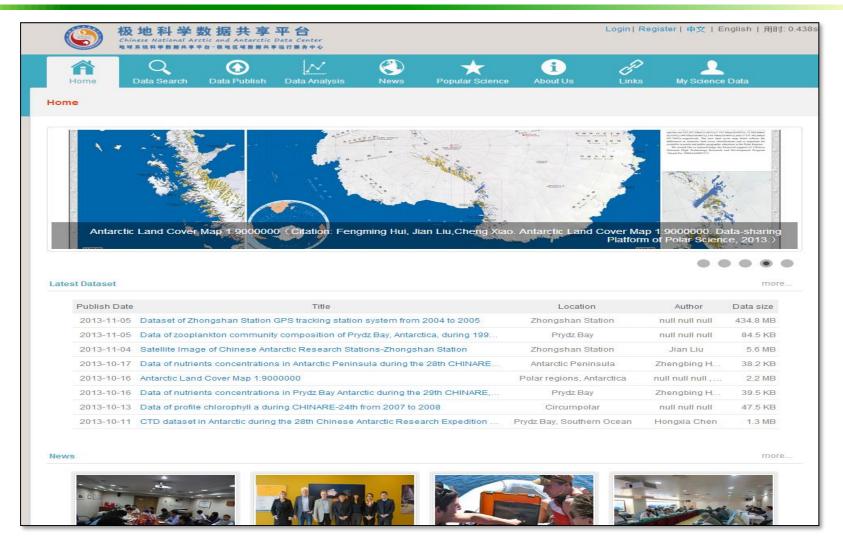
new Open Access 'Geoscience Data Journal', specifically for describing geospatial datasets

Spatiotemporal variability of permafrost degradation on the Qinghai-Tibet Plateau

More »

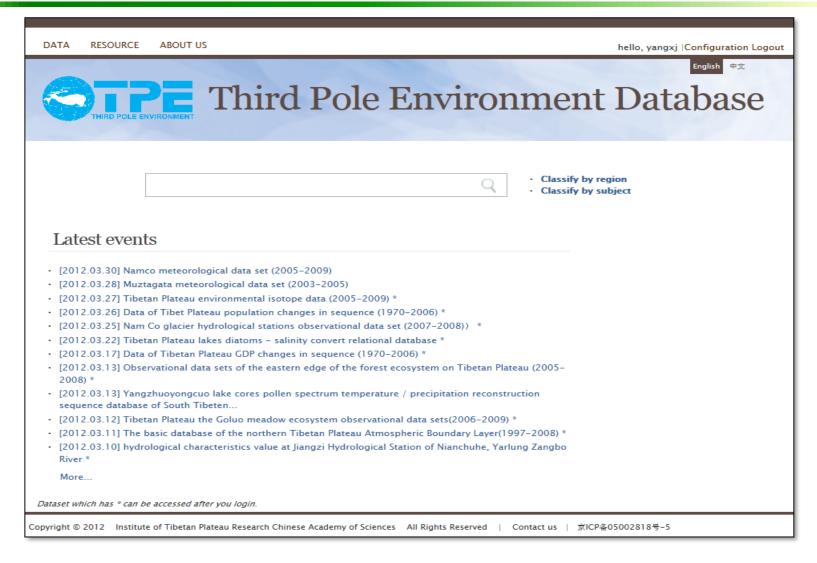
## **Cold and Arid Regions Science** Data Center at Lanzhou

## Chinese National Arctic and Antarctic Data Center



http://www.chinare.org.cn/cn/index/ (in Chinese) http://www.chinare.org.cn/en/index/ (in English)

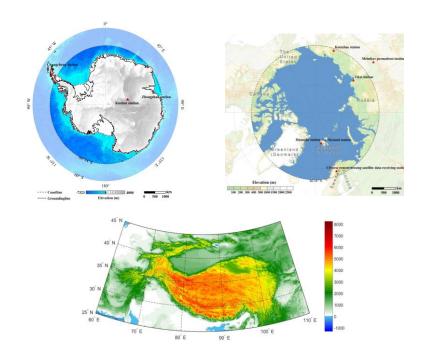
## **Third Pole Environment Database**

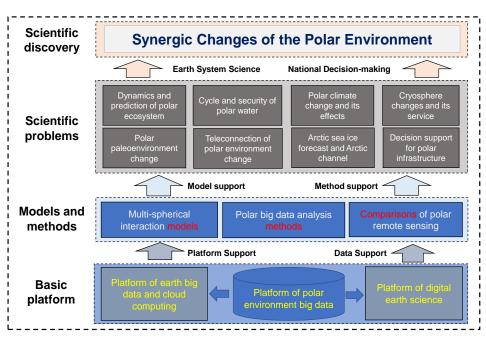


http://www.tpedatabase.cn

## Recent efforts in China

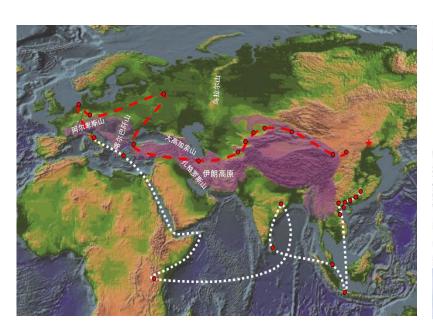
- CASEarth Poles: A Big Earth Data Platform for Three funded by the Strategic Priority Research Program of the Chinese Academy of Sciences
- The environment and climate change in three poles planned by the Ministry of Science and Technology

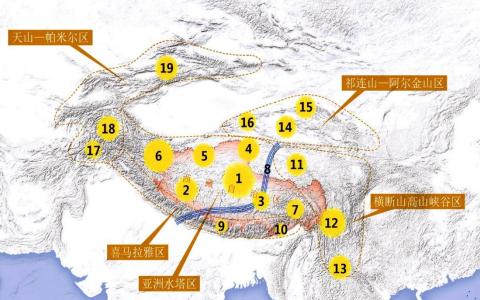




## **Recent efforts in China**

- The data center for the 2nd Tibetan Plateau Scientific Expedition funded by the Ministry of Science and Technology
- An-Third Pole Environment Study for a Green Silk Road funded by the Strategic Priority Research Program of the Chinese Academy of Sciences





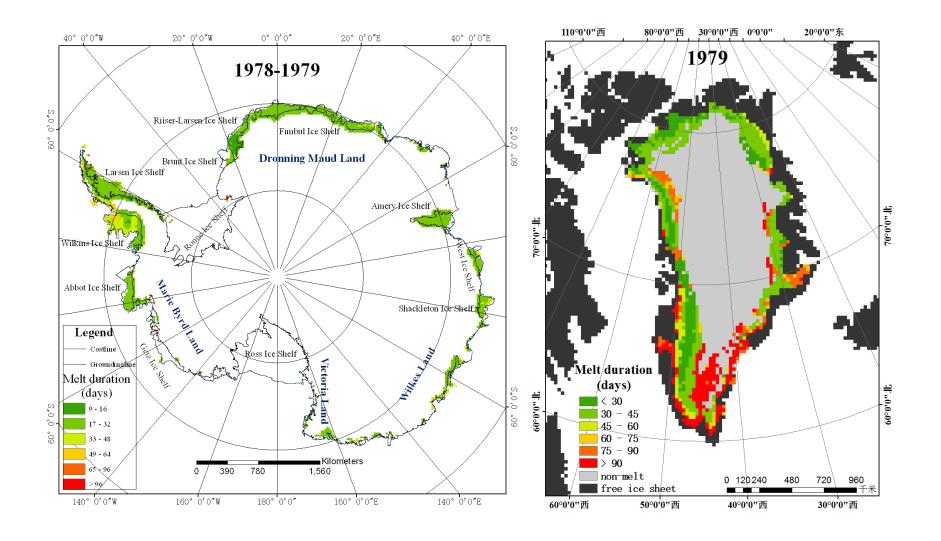
# CAS Poles big data platform



- Data sharing with multiple layers (for modeling, computing, visualization)
- Service with different clients (Web, Mobile app, Web Service and SNS)
- Integrated with Hadoop & Spark
- Based on the ISO 19115/19139 Metadata
- Intellectual property protection for research data via DOI/Data Citation Index
  - Antarctica and Artic Ice Sheet Snowmelt Dataset
  - Antarctica Ice Sheet Surface Elevation
  - Sea ice concentration
  - Key variables of water cycle in Artic 1998-2017
  - Global snow depth 1998-2017

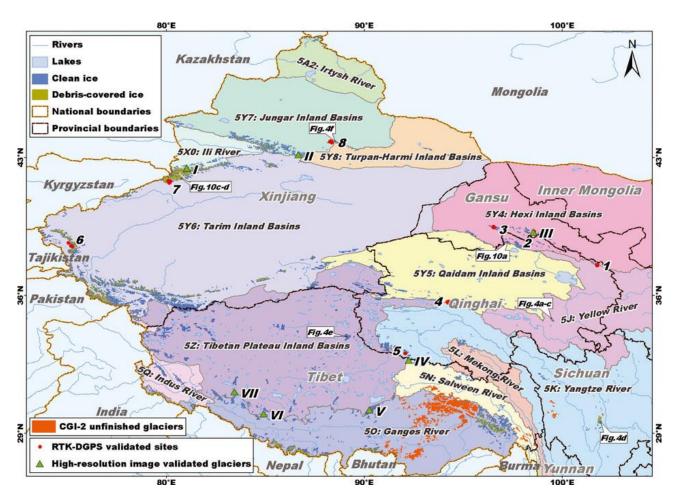
http://www.poles.ac.cn/#

# Freeze/thaw of ice sheet



# The Second Glacier Inventory

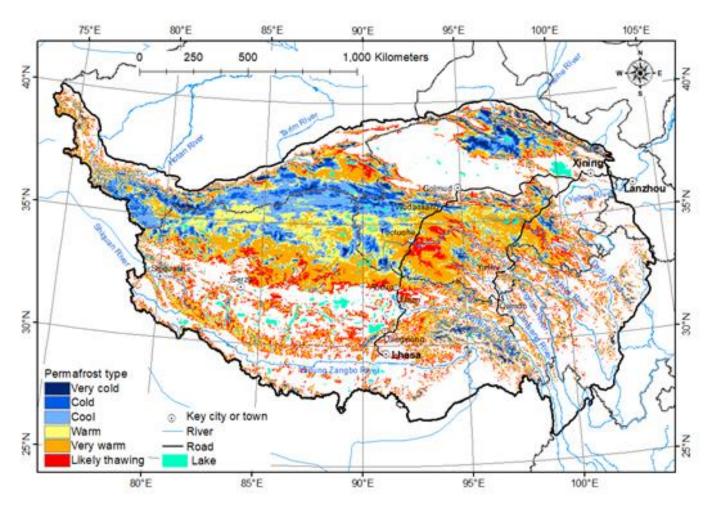
## doi:10.3972/glacier.001.2013.db



Guo WQ, Liu SY, Xu JL, Wu LZ, Shangguan DH, Yao XJ, Wei JF, Bao WJ, Yu PC, Liu Q, Jiang ZL. The second Chinese glacier inventory: Data, methods and results. Journal of Glaciology, 2015, 61(226): 357-372.

## Permafrost stability map on the Qinghai-Tibetan Plateau

http://www.poles.ac.cn/data/d8776cb4-15d8-4ac7-a378-742e9a60d674

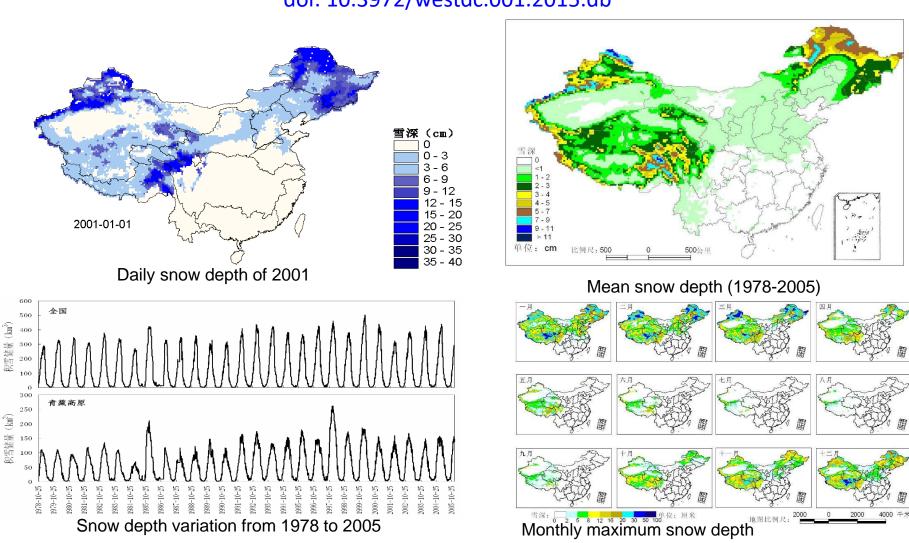


Ran YH, Li X, Cheng GD. Climate warming over the past half century has led to thermal degradation of permafrost on the Qinghai—Tibet Plateau. The Cryosphere, 2018, 12(2): 595-608.

## Snow depth datasets

积雪储量(km³)

doi: 10.3972/westdc.001.2015.db



Che et al., 2008Che T, Li X, Jin R, Armstrong RL, Zhang TJ. Snow depth derived from passive microwave-remote sensing data in China. Annals of Glaciology, 2008, 49: 145-154.

Dai et al., 2012, Remote Sensing of Environment; Dai et al., 2015, Remote Sensing.

# Thank you for your attentions

