America’s
Public Parks and Protected Areas

Updates from the
Protected Areas Database of the United States (PAD-US)

National Trails System GIS Network
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U.S. Department of the Interior
U.S. Geological Survey
Presenter

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PAD-US is a product of USGS Core Science Systems (CSS)
http://gapanalysis.usgs.gov/padus
Roadmap

1. What is PAD-US?
2. Examples of use
3. How we build PAD-US and how to get it
4. Where it’s going
5. Q&A

Viewer Demo
1. What is PAD-US?
Protected Areas

Database of the

United States

PAD-US

natural, recreational,

historic or cultural

(public land + nonprofit)
Includes:

Small sites to huge sites…

Recreation to habitat…

Everything.
PAD-US is geospatial (GIS) data

3 billion acres*
120,000 units
15,000+ agencies
Published by USGS

*Includes ownership and overlapping designations, plus marine protected areas
PAD-US is boundaries

Ownership
Management
Designations
(Fee/easement;
Wilderness, MPAs, etc.)
What can PAD-US tell you?

**Agency Type**
- “Federal”
- “Local Gov”

**Unit Name**

**Designation Type**
- “National Wildlife Refuge”
- “National Forest”
- “State Park”

**Owner and Manager**

**Agency Name**
- “National Park Service”
- “State Parks and Rec”

**Date of Establishment**

**GIS Source**

**Fee or Easement**

**Public Access**
- Open, Closed, Restricted

**State Name**

**Acres**

**Biodiversity protection status**

**WDPA Code**

**Source data or standardized**
National Trails?
## National Trails?

<table>
<thead>
<tr>
<th>Agency</th>
<th># of Trails</th>
</tr>
</thead>
<tbody>
<tr>
<td>USFS</td>
<td>161</td>
</tr>
<tr>
<td>NPS</td>
<td>1</td>
</tr>
</tbody>
</table>
2. Here’s how PAD-US is being used
Five quick examples

1. Species conservation
2. Habitat conservation
3. Wildfire management
4. Emergency response
5. Outdoor Recreation
Case 1: **Keep Common Species Common**

PAD-US is a key database produced by USGS** Core Science Systems**

Originally developed to fulfill the USGS **Gap Analysis** mission of “Keeping Common Species Common”

PAD-US has **expanded** to serve conservation, recreation, public health and other areas, but still serves this USGS species mission
Case 1: **Keep Common Species Common**

How well protected is the habitat for the Lark Bunting?
Case 1: Keep Common Species Common

How well protected is the habitat for the Lark Bunting?

Land Cover > Species Distributions + Protected Areas
Case 1: **Keep Common Species Common**

How well protected is the habitat for the Lark Bunting?

2.6% of Lark Bunting habitat is protected
Case 2: **Habitat conservation**

NAWPA 2016 Report Findings
(Status of Conservation in North America)

- **Goal:** 17%
- **Within IUCN categories:** 12%
- **With other managed lands:** >21%
Case 2: North American Conservation (NAWPA)

nawpacommittee.org
Case 3: Support for wildland fire decisions

Andrew Bailey
National Wildfire Coordinating Group, DOI
Case 3:  Wildfire - land mgmt. data crucial
Case 3: Wildland fire - Management status is important!

- What do we need to get the job done?

- What we get from PAD-US data?
  - Unit Name (Standards!)
  - Agency Name (Standards!)
  - Designation Type (Standards!)

- What do we link to PAD-US data?
  - Unit ID – NWCG Standard
  - [https://www.nifc.blm.gov/unit_id/Publish.html](https://www.nifc.blm.gov/unit_id/Publish.html)
  - Fire Management objectives and requirements
Case 3: Wildland fire - PAD-US is a trusted source

- Developed with Fed Lands Working Group
- Using PAD-US as a base and joining fire-business specific attribution
Case 4: DOI Emergency Response

- Interior Operations Center (IOC)
- Situational awareness, incident reports to Secretary
- Share info with NOC, Homeland Security
- Send alerts to bureaus and offices
- PAD-US in IOC system viewer
Case 5: Recreation One Stop and Recreation.gov

- Well-established public service –
  - 16 million+ users per year
- Self-sustaining program
  - no appropriated funds
- Recreation.gov - Park facility focus (camp, hike, attend)
- Promotes an active and healthy lifestyle
Case 5: Helping Recreation.gov

PARK
ATTRIBUTES
✔ Hiking
✔ Biking
✔ Climbing
✔ Fishing
✔ Restrooms
✔ Trail map avail.
✔ Open all year?
✔ etc.
Promising Opportunities – Parks and Health

Trust for Public Land

ParkServe™

Goal: every American lives within a 10-minute walk of a park, playground, or protected natural area.
PAD-US – **Great data** helps us do even more . . .
With great data, we can…

- Ensure effective energy development siting and mitigation
- Track conservation assets
- Avoid expensive hazards (flood, fire, hurricane) in our development decisions
- Encourage private innovation including mobile apps for recreation
- and more…
3. What’s under the hood of PAD-US?
How PAD-US is built

- States
- Feds
- NGOs
State Stewards

- In each state: 1-2 agencies, universities, NGOs
- Compiles nonfederal lands data
- Many states with effective systems
- Other states need improvement
- Protectedlands.net/partners
Federal Lands Working Group (FLWG)

- 14 land managing agencies and stakeholders
- **Collaboration** to support aggregation of federal land ownership and management designations into PAD-US
- **Sharing** best practices, improving internal systems, raising awareness

https://cms.geoplatform.gov/a16govunits/FederalLands
More Info

Enhancing data for protected areas in the U.S.

We are creating a spatially explicit inventory that lets any user – from the general public to professional land managers – know exactly what lands are protected anywhere in the United States and allows them to easily use this inventory in conservation, land management, planning, recreation and other uses.

Learn more: Download PAD-US FactSheet

Best Data Practices

Montana

Excerpt data (along with all other protected lands information) is fully available in this state, where public data access to it is required by law. The state’s Land Stewardship data center has... Learn more >>

PAD-US News

- Webinar Recording Available for PAD-US Presentation to LCCs
- Interior’s Office of Policy Analysis Seminar to Feature PAD-US
- PAD-US Data Used in Fuel Treatment Study
- A revised Fact Sheet is available that summarizes the features, uses, and impressions of PAD-US

Access PAD-US Data

GET DATA
Protected Areas

GET MAPS...
How to get **PAD-US**

**Get:**

- Data (shape, geodatabase, Google Earth)
- Web services

How to get **PAD-US**

**USGS Web services**
gapanalysis.usgs.gov/data/web-services/

**ArcGIS Online**
Groups owned by **GapAnalysisProgram**

Protected Areas (PAD-US) – Version 1.4 web services

- All Protected Areas – Green
- Terrestrial Protected Areas – Gray
- Terrestrial Protected Areas – Green
- Easements
- Categories – Fee, Easement, Other, MPA
- Categories – Fee, Easement, Other
- Public Open Space
- Public and Private Open Space
- Public Access
- General Agency Level
- Mid Agency Level
- Fine Agency Level
- Federal Management Agencies
- Federal, Tribal, Other
- DOI, Other Federal, Tribal
- Simple Designation Type
- Detailed Designation Type
- Protected Areas by Manager
- Protected Biodiversity Areas
- Protected Multiple Use Areas
- GAP Status Code
- IUCN Category
- IUCN Category and Other Conservation Areas
4. What’s next for PAD-US?
The PAD-US Vision realized . . .

- Every park
- Everywhere
PAD-US Action Plan

PAD-US report - [www.protectedlands.net/vision](http://www.protectedlands.net/vision) summary, full reports
Call to action

Seeking **partners** to **complete** PAD-US:

- Finish **local** / regional parks
- Improve **federal** and **tribal** data
- Support **states** and **NCED**
- Make system more **efficient**
- Do more **outreach** and user support
You can help

- Highlight the importance of great geospatial data – data stewards need support!

- PAD-US is a national resource! Support collaboration, fill gaps

- Encourage use of PAD-US, and tell us about examples

- Help us increase awareness, share news
5. Q&A – Your turn

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Exploring the PAD-US Viewer
1. PAD-US Website

gapanalysis.usgs.gov/padus
1. PAD-US Viewer - layers of information

maps.usgs.gov/padus
1. Fine Level Agency - Manager Name

Denver, CO
1. General Agency - **Manager Type**
1. Level of Public Access
1. Protection Status - GAP Code

Denver, CO
1. PAD-US Viewer - Click map for more info
1. PAD-US Viewer **Navigation - Search**

Alaska
1. PAD-US Viewer - **Basemaps** for context
What’s new at ProtectedLands.net?
1. ProtectedLands.net

www.ProtectedLands.net

PAD-US companion site

Partners, PAD-US uses and future plans

Uses USGS web services for maps (available for public use!)
1. Layers - DOI, Other Federal and Tribal

+ Cities
1. Federal Management Agencies (in West)
1. Federal Management Agencies - East + Congress
1. Protection Category

Boston, MA
1. Base maps and authoritative data
1. Zoom, BirdsEye, Share
1. Reports - coming soon!
1. Reports