

Visitor Management in Protected Areas

Prof. Dr. Erik Aschenbrand

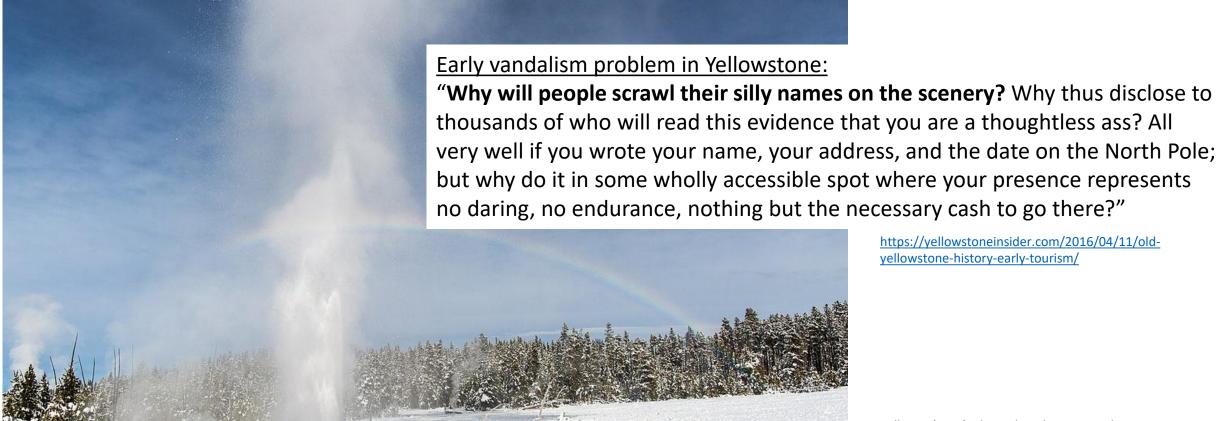




Niagara Falls from the American Side by John Vanderlyn, 1801-1803

As early as 1818, writer Francis Hall criticized the construction of tourist infrastructure to facilitate access to Niagara Falls as superfluous and detrimental to the enjoyment of the natural spectacle. : "In my opinion, more ist lost than gained by this facility.

The effect produced upon us by any object of admiration is increased by the difficulties of approaching it" (Hall 1818: 234)



Grinnell, G.B. (1883): The Park Grab. Forest and Stream Magazine 1883, January 4, P.1.

New York. https://archive.org/stream/ForeststreamXIX#page/441/mode/1up

Grinnell, G.B. (1883): Mr. Vest's Victory. Forest and Stream Magazine 1883, March 8,

P.1. New York.

https://archive.org/stream/ForeststreamXX#page/101/mode/1up/search/fleeced.

"The Park is at present all our own. How would our readers like to see it become a second Niagara — a place where one goes only to be fleeced, where patent medicine advertisements stare one in the face, and the beauties of nature have all been defiled by the greed of man?" (George Bird Grinell 1883)

1883 Controversy on tourism in Yellostone NP

→ Call for visitor management and tourism management more generally

Protected areas and nature (mass-)tourism have developed together





Why visitor management?



- Enhancing experience
- Creating revenue for the protected area
- Reducing direct impacts of tourism on the objects of protection challenge for understanding and managing the direct impacts: strong temporal differences (daytime/week(end)/season)
- Reducing external negative effects (mostly resulting from transport)

Protected areas and nature (mass-)tourism have developed together

Why visitor management?







- Conflicts between nature conservation and tourism depend on both the behavior of tourists and on the sensitivity of the habitat
- The sensitivity of the habitat depends on the type of habitat and the sensitivity of flora and fauna

Environmental impacts of tourism

Causal factors

- Buildings, facility operations and associated infrastructure
- Visitor activities and related infrastructure
- Transportation and related infrastructure
- Behavior of tourism service providers
- Indirect impacts (immigration, urbanization)

Types of impacts (examples)

- Disturbance of wildlife (through observation, traffic)
- Decimation of rare species (hunting, souvenirs, collecting)
- Ecosystem degradation (pollution, trampling damage)
- Water consumption and pollution (high per capita consumption, eutrophication)
- Contribution to anthropogenic climate change



www.kreuzlinger-zeitung.ch



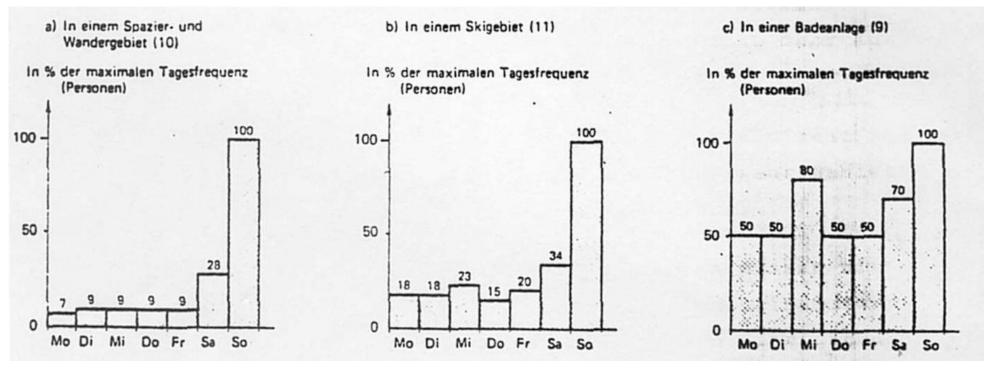
www.alpenverein.i



www.haz.de

Temporal fluctuations in recreational demand

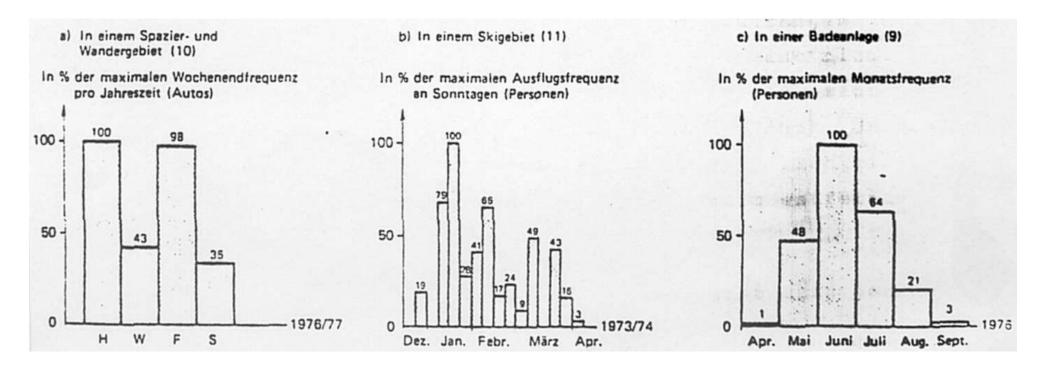
Weekly schedule of recreational use



JACSMANN; 1982

Temporal fluctuations in recreational demand

Annual schedule of recreational use



Carrying capacity

"the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic and sociocultural environment and an unacceptable decrease in the quality of visitors' satisfaction" (UNWTO 2018)

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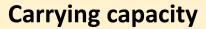
Criticism

Defining **one** carrying capacity is hardly possible because: Impact depends on visitor number + **behaviour** + Seasonality + ...

•••

"Capacities [...] are in fact the result of a series of normative and often implicit judgements that are hidden in the analysis process" (McCool&Lime 2001) → the search for a capacity is dependent on the selection of a specific objective

"we suggest transforming the character of the question to focus not on **how many** people can an area sustain, but rather on **the social and biophysical conditions** desired or appropriate at a destination" (McCool&Lime 2001, 373). "Change is an inevitable consequence of recreational use. [...] How much change is acceptable?" (Stankey et al. 1984)



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"articulating objectives and selecting among them" (McCool&Lime 2001)

- 1. Identify area issues and concerns
- 2. Define and describe opportunity classes
- 3. Select indicators of resource and social conditions
- 4. Inventory existing resource and social conditions
- 5. Specify standards for resource and social conditions in each opportunity class
- 6. Identify alternative opportunity class allocations
- 7. Identify management options for each alternative
- 8. Evaluation and selection of a preferred alternative
- 9. Implement actions and monitor conditions (Stankey et al. 1984).

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Carrying capacity

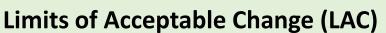
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and other decision making frameworks

"These frameworks share a number of characteristics (McCool&Lime 2001)

- 1. focus on defining and obtaining agreement on important values and on desired or acceptable conditions that are specific and socially acceptable
- 2. identify the particular issues that serve as barriers to achieving those conditions so that management is focused.
- 3. include quantified indicator variables (e.g. the number of groups encountered along a nature trail, or the amount of soil impact) that can be used to assess progress toward attainment of conditions or objectives.
- 4. prescribe standards of quality that describe the amount of change acceptable.
- 5. standards themselves are quantified" (McCool&Lime 2001)

Instruments for controlling the environmental impact of tourism

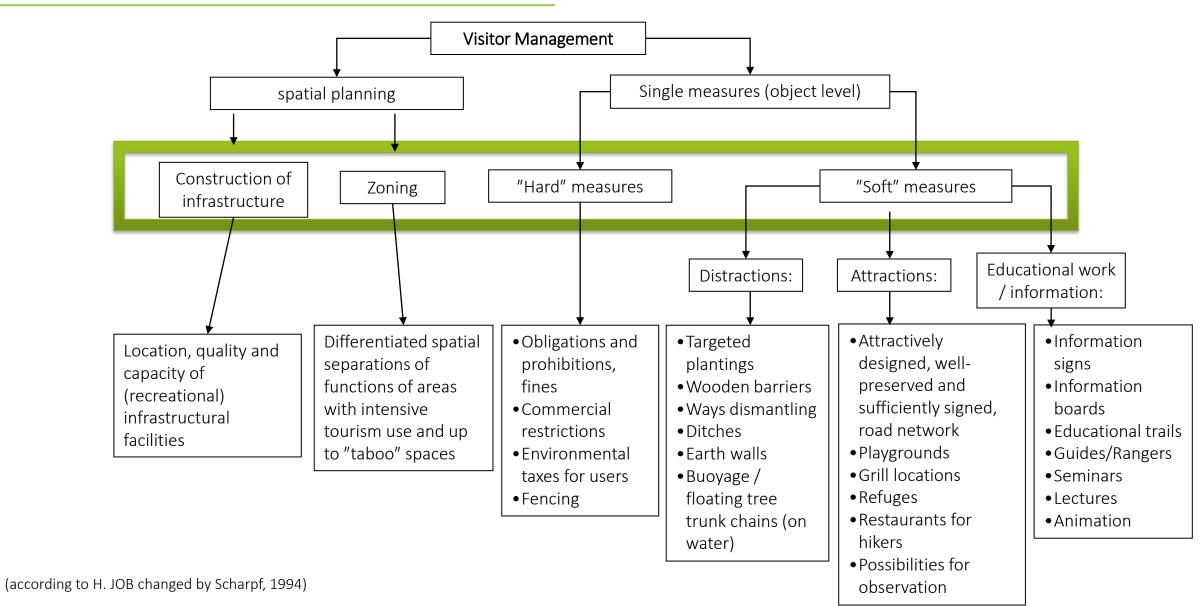
Tourism component	Target groups	Control instruments
Visitor activities	Tourists	Visitor guidance, zoning
Tourist services	Tour operator, guide, driver, destination marketing organization	Codes of Conduct, Environmental Seal of Approval, developing visitor guidance and zoning together

Table 1. Functions of hard and soft visitor management strategies (Sources Grant, 1994; Orams, 1996; Cooper et al., 1998)

Hard visitor management strategies: aimed at regulating visitor activities	Soft visitor management strategies: aimed at educating visitors
Restrictions on access and certain activities Security site personnel/rangers/police Implementation of rules and regulations Discriminated entrance and parking fee charges Zoning Resource hardening such as construction of boardwalks, reconstruction and repair of heritage buildings and monuments	Provision of visitor information and environmental interpretation Marketing for targeted visitor groups Landscaping and planting

Figure from: Kuo (2002): The Effectiveness of Environmental Interpretation at Resource-SensitiveTourism Destinations. International Journal of Tourism Research, 4. 87-101.

Visitor Management measures for **conflict prevention**



Rangers: Education/interpretation and enforcement

US NPS Law Enforcement Rangers





competences and duties of Rangers in german protected areas

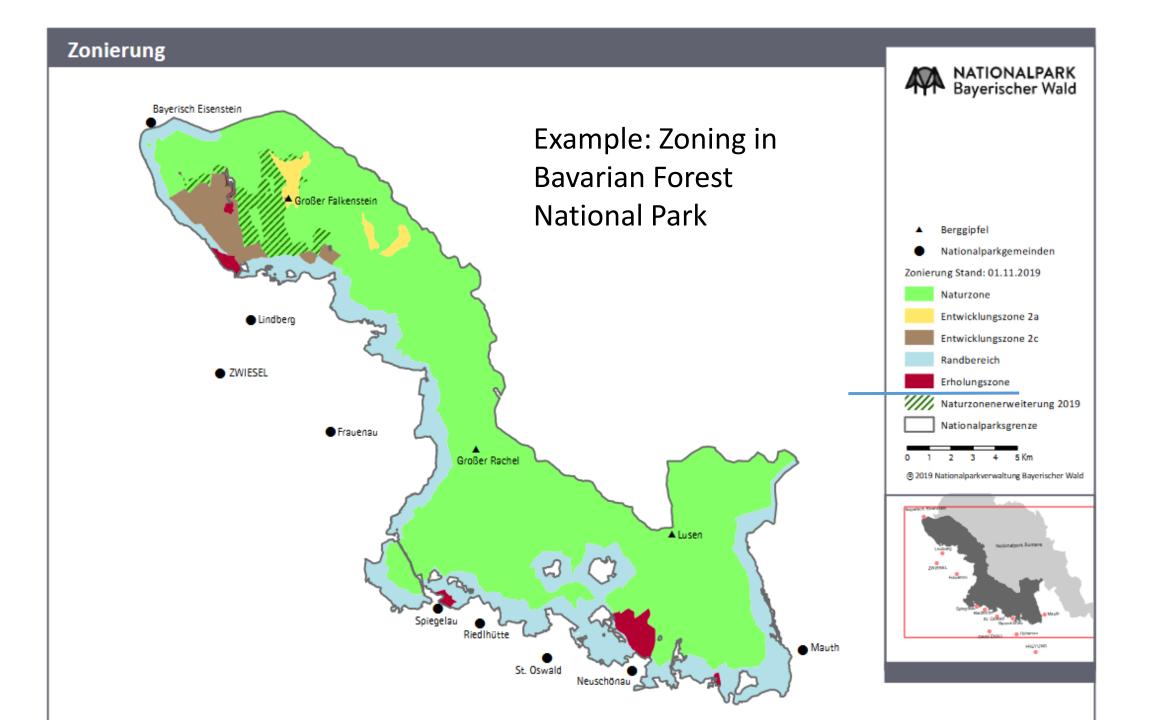
The "honey pot" principle



Treetop Trail Hainich National Park



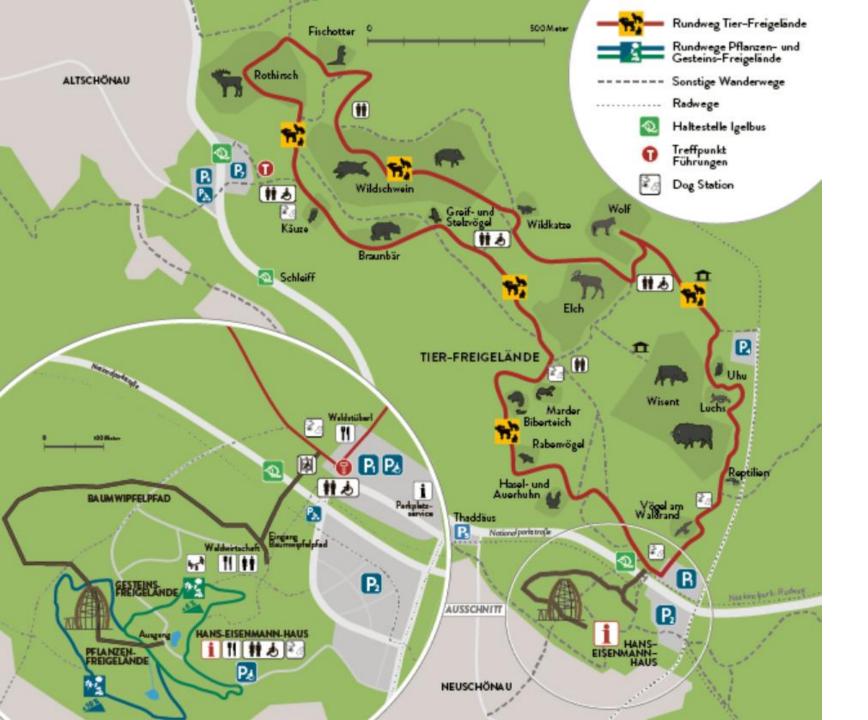
Visitor Center Lake Neusiedler National Park/Austria



Visitor management starts outside of the protected area, directing visitors to the visitor centers







Example Bavarian Forest National Park. National Park Center Lusen

Visitor Centers



Photo: Jens Büttner/Archiv (Quelle: dpa)

Tourist infrastructure and services

Infrastructure—the "hardware"

- Establishment of special places (lookout/observation points)
- Trails, roads, waterways (simple, natural design)
- Information and interpretive facilities (signs, etc.)
- "Practical" facilities (picnic areas, restrooms)

Information and interpretation—the "software"

- Information—rules, orientation, etc. "practical" advice
- Interpretation—environmental education, environmental experiences & discoveries
- Media—personal, signs, print media, audio-visual, internet
- When?—before arrival and on site

Visitor centers

- Reception and entrance to the protected area
- Concentration of infrastructure and services
- Additional services (store, café, guided tours, equipment rental, etc.)



Treetop trail—Hainich National Park

 Two loops—238 and 308 meters long, viewing platform at 40 meters height

 Stations with different topics (woodpecker, bat, photosynthesis, deciduous trees,...)

- Adventure elements such as suspension bridges and explorer forest
- National Park Center









Quelle: www.nationalpark-hainich.de.

MacCannell: Tourism Semiotics

Visitor Centers, information boards, guided tours → interpretation → Attempt to create marker involvement

[Represents / something / to someone] sign

[marker / sight / tourist] attraction

On-sight marker ← → off-sight marker

Sight involvement ← → marker involvement

New York (AP): Less than an ounce of moon rock went on display at the American Museum of National History, and 42,195 people, the largest one-day crowd in the museum's history turned out to see it. "It looks like a piece of something you could pick up in Central Park" one 13 year-old boy said. "But its cool that its from the moon" (As quoted in MacCannell 2013, 113).

"The important element in (pleseant?) sightseeing need not be the sight" (MacCannell 2013, 113)

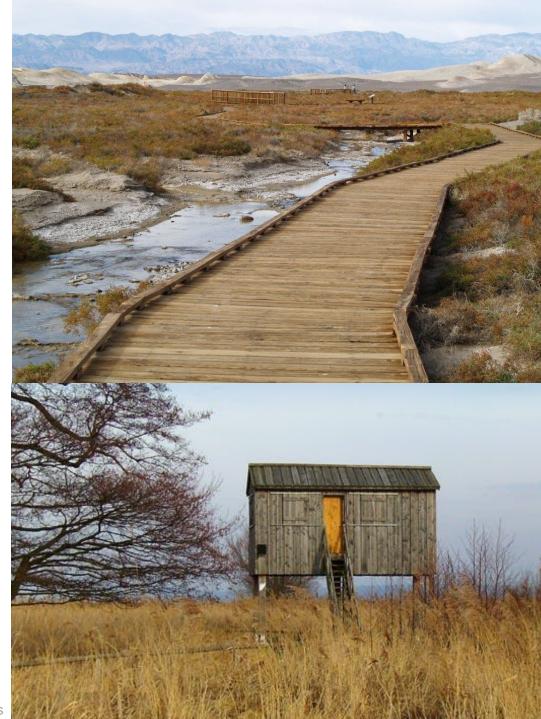


An attempt to enhance marker involvement

Nature experience infrastructure

usually combined with interpretation (boards/guided tours/...)





Photos: Strasdas

Observation Towers





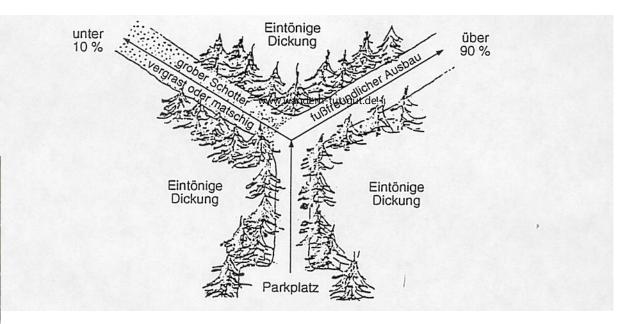


Visitor management through trail development





wandern-im-coburger-land.de





- foot-friendly, fine gravel attracts hikers
- the color of the material can attract hikers, e.g., reddish
- yellow color of granite versus "dull" gray
- coarse gravel, muddy areas or grassy areas repel hikers

Result: at least 90 % follow the path guidance





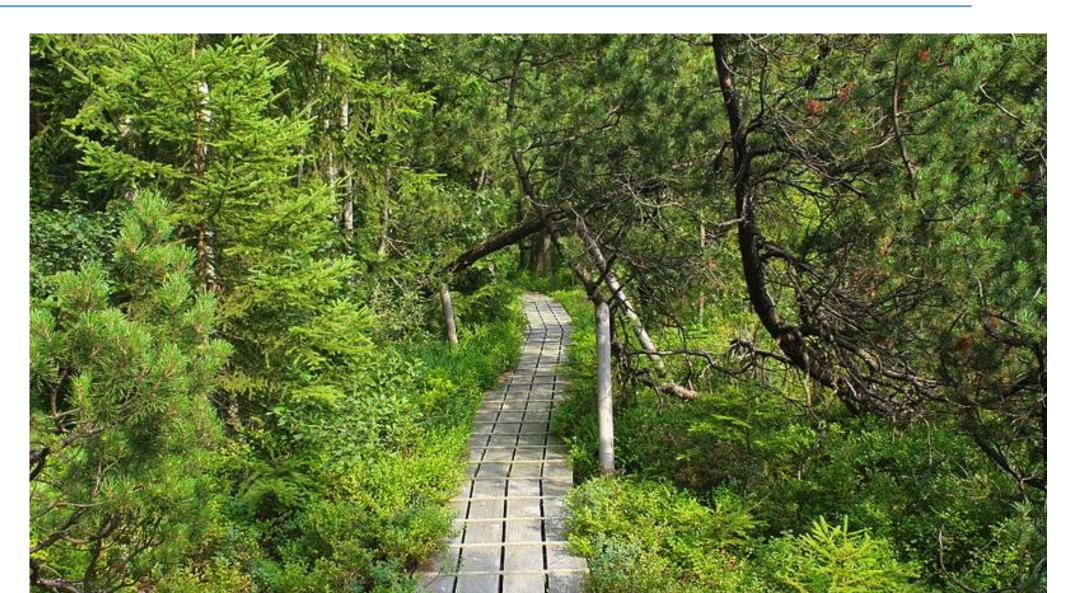


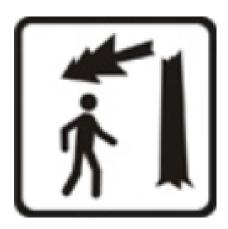


Creating new hiking trails



Wooden plank paths for visitor guidance





Verkehrssicherungspflicht (safety obligations) in German law:

Visitor attractions need to be safe. What is an attraction?

- A forest road used for hiking?
- A boardwalk?
- A "wilderness trail"?
- An information board?
- A bench?

Entrance Fees

Entrance Fees

Table 23.4 Alternative methods for entry charges

Alternative	Explanation	Example
Charging for time	Charging a day rate, with more for an overnight stay	A car park with time-based parking charges
Charging different amounts to use different areas	Charging more for costly management areas and less for low-cost areas, or more for visiting or using highly desirable areas	Higher pricing for beachfront camping than inland camping
User fee	Charging more for activities requiring more infrastructure and management	Higher pricing for snow skiing entry compared with summer visitors
Higher price for those who can afford more	Higher price for international visitors, discounted fee for nationals, free entry for locals	Charging more for international visitors than for national or local visitors
Charging for peak and off-peak use	Charging higher rates for entry during the most popular time of the year	Higher fees during holiday periods, or for skiers, during winter months

Entrance Fees



SAN Parks is a protected area management authority that is running their own tourism business



Private concessions, SANParks camps and lodges in National Parks https://www.sanparks.org/parks/kruger/camps/luxury_lodges/jock/

SANParks is the biggest tourism product owner in the country with a total of 6 787 formal beds and 8 643 camping beds throughout the national parks.



Kruger National Park

Tariffs

Daily Conservation Fees

Daily Conservation fees for 1 November 2021 to 31 October 2022	
South African Citizens and Residents (with ID)	R110 per adult, per day R55 per child, per day
SADC Nationals (with passport)	R220 per adult, per day R110 per child, per day
Standard Conservation Fee (International Visitors)	R440 per adult, per day R220 per child, per day

SANParks is the biggest tourism product owner in the country with a total of 6 787 formal beds and 8 643 camping beds throughout the national parks.



Table Mountain National Park

Cape of Good Hope

Conservation Fees for 1 November 2021 to 31 October 2022	
South African Citizens and Residents (with ID):	R90 per adult per day R45 per child, per day
SADC Nationals (with passport):	R180 per adult per day R90 per child, per day
Standard Conservation Fee (International Visitors):	R360 per adult per day R180 per child, per day

SANParks is the biggest tourism product owner in the country with a total of 6 787 formal beds and 8 643 camping beds throughout the national parks.

SAN Parks Annual Report 2020

1 April 2019 – 31 March 2020 1 April 2018 – 31 March 2019

	Notes	2020 R '000	2019 R '000	
Revenue		1 RAND= 0,059 Euro		
Revenue from exchange transactions		2,271,303,000 R = 133 Mio. Euro		
Tourism, Retail, Concession and Other	16	2,271,303	2,170,596	
Sales — fauna and flora	17	16,942	4,266	
Other operating income	18	46,862	41,558	
Interest received	19	72,974	67,141	
Total revenue from exchange transactions		2,408,081	2,283,561	
Revenue from non-exchange transactions				
Transfer revenue				
Government grants and other funding	20	713,208	709,822	
Donations	21	46,813	17,709	
Total revenue from non-exchange transactions		760,021	727,531	
Total revenue		3,168,102	3,011,092	

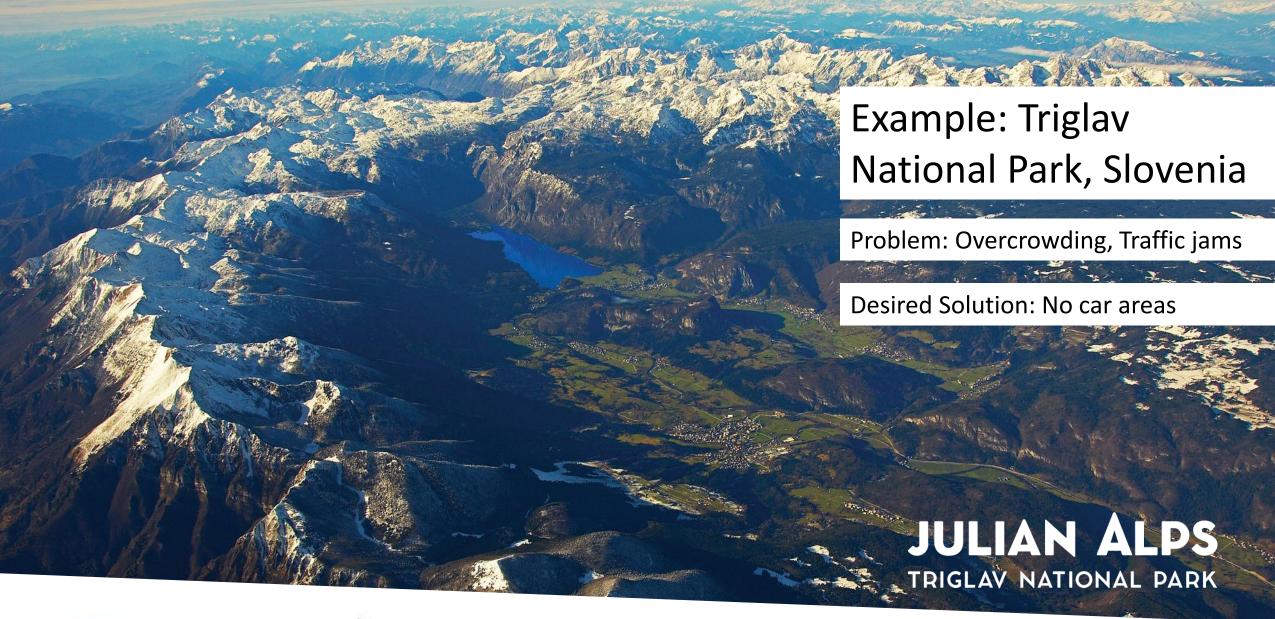
SAN Parks Annual Report 2020. https://www.sanparks.org/assets/docs/general/annual-report-2020.pdf. All Annual Reports: https://www.sanparks.org/about/annual/

ANNUAL REPORT | 2020/21

STATEMENT OF FINANCIALS PERFORMANCE 1 April 2020 – 1 April 2019 – 31 March 2021 31 March 2020

	Notes	2021 R'000	2020 Restated* R'000
Revenue			
Revenue from exchange transactions			
Tourism, Retail, Concession and Other	17	834,792	2,271,303
Sales - fauna and flora	18	4,753	16,942
Other operating income	19	55,563	46,862
Interest income	20	49,075	72,974
Total revenue from exchange transactions		944,183	2,408,081
Revenue from non-exchange transactions			
Transfer revenue			
Government grants and other funding	21	1,515,235	713,208
Donations	22	36,850	46,813
Total revenue from non-exchange transactions		1,552,085	760,021
Total revenue		2,496,268	3,168,102

Access restrictions

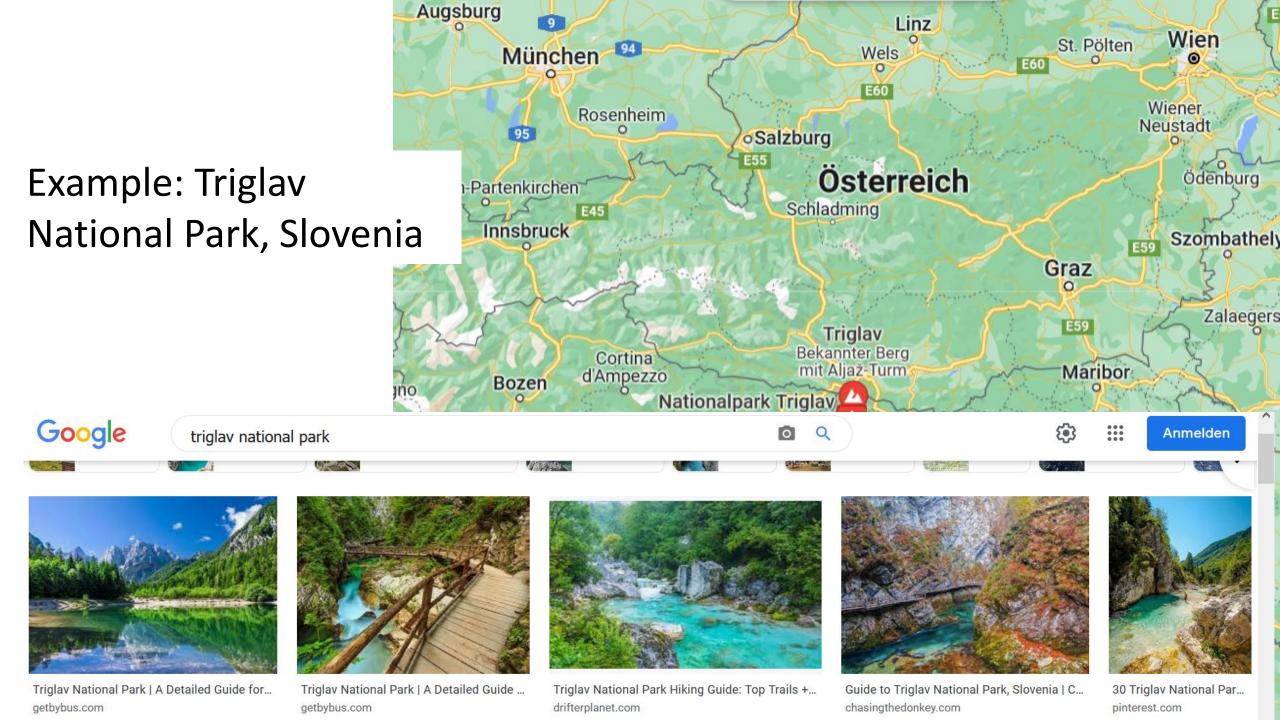






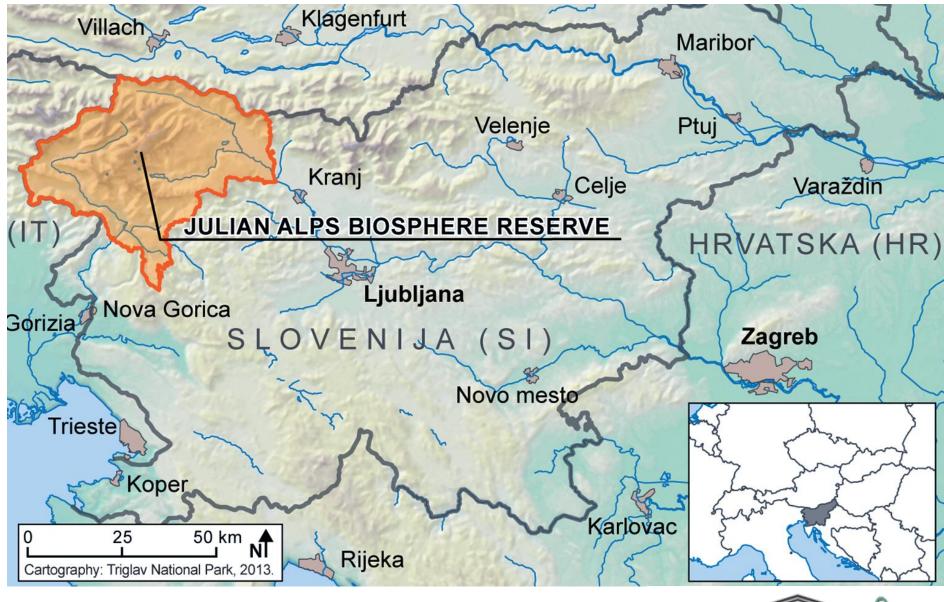
Example: Triglav National Park, Slovenia







REALITY





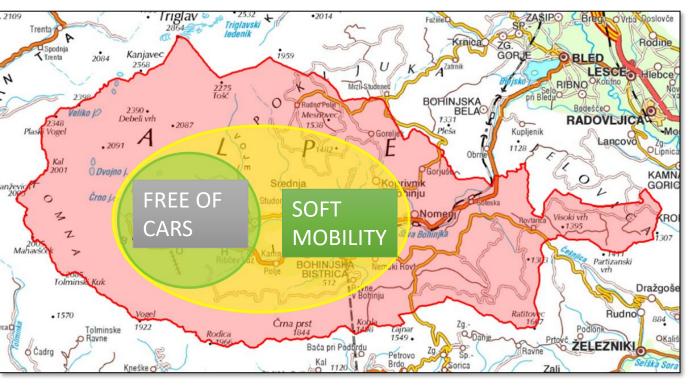






Za cvetoči Bohinj. For Bohinj in bloom.

STRATEGICALLY:





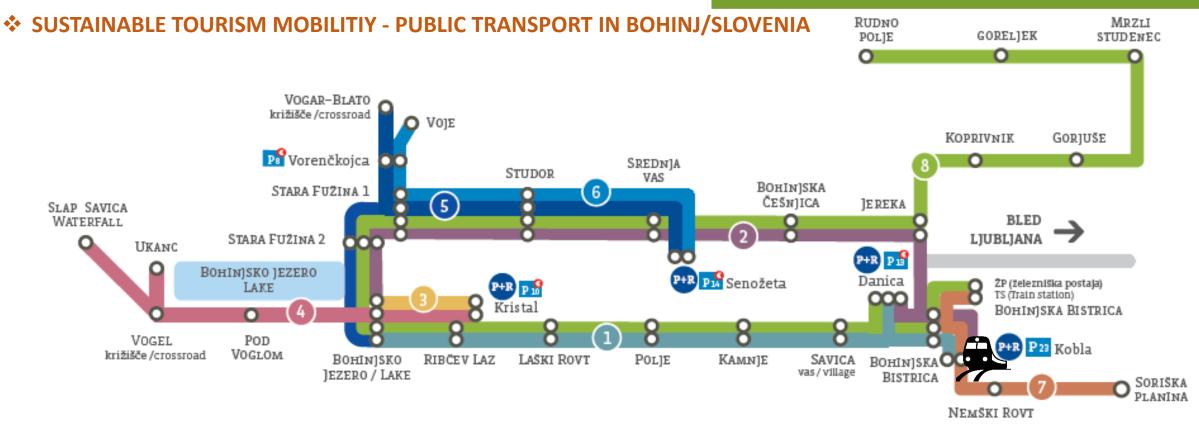
- 1. The main area of TNP does not allow any entry of vehicles with internal combustion engines vehicles.
- 2. Soft mobility is introduced and stimulated on the entire area of Bohinj Municipality.
- 3. Transit traffic is eliminated from the centres of Bohinjska Bistrica and Stara Fužina.
- 4. Motor transport is calmed in settlements and road surface is transformed (paving).
- 5. Introduction of cycling and hiking routes.
- 6. Intelligent Transport System introduction







Za cvetoči Bohinj. For Bohinj in bloom.



> 9 public transportatin lines in summer – for tourist and locals



JULIAN ALPS MOBILITY CARD: BOHINJ

For guests who stay more than 2 nights in Bohinj





Example: National Park El Teide, Spain

-access restrictions and zoning



Example: National Park El Teide, Spain

-access restrictions and zoning





national park el teide









Anmelden



Teide National Park | spain.info in english spain.info



16,247 El Teide National Park Stock Photos, Picture... istockphoto.com



Parque Nacional del Teide: Nationalpark Ten... volcanoteide.com



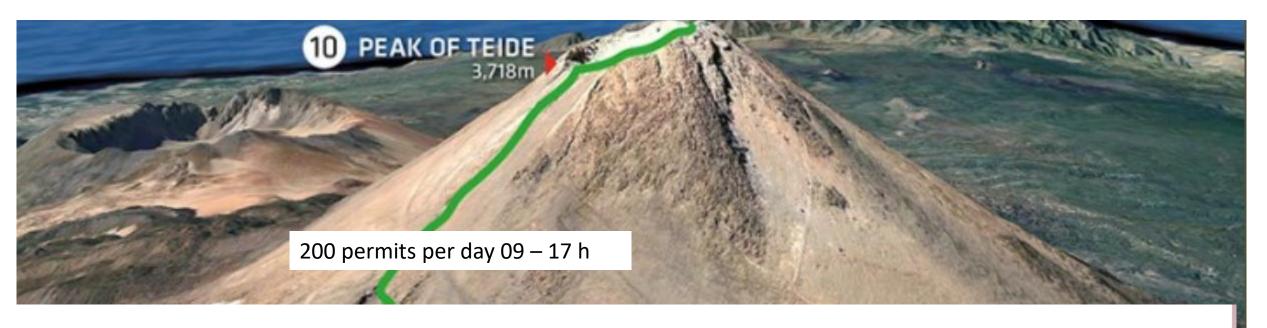
Nationalpark El Teide – Regionale Ausdehnung und Bedeu teneriffa.ferienhaus-canarias.net











PICO DEL TEIDE ACCESS PERMIT

SELECTION OF DATES

<		junio	de :	2022		>
lu.	ma.	mi.	ju.	vi.	sá.	do.
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

Places available
There are no places available
Selected day

Without seats enabled

09 jun. 2022 09 jun. 2022 11:00 - 13:00

No VACANCIES

No VACANCIES

No VACANCIES

No VACANCIES

VACANCIES

VACANCIES

VACANCIES (12) You must click SELECT to continue.

NÚMERO de PERSONAS



sunday, april 10th 2022

< RETURN to the LIST of ACTIVITIES

access your € bookings

PERMISSION NUMBER

GO

PICO DEL TEIDE ACCESS PERMIT

Description of the activity

Processing of the permit to access the Pico del Teide on foot using the "Telesforo Bravo Trail" (no 10 of the Park network), the only one that connects La Rambleta (3,555 meters) with the summit (3,717.98 meters). This journey is done on foot. This activity is independent of having reached La Rambleta on foot or by using the cable car.

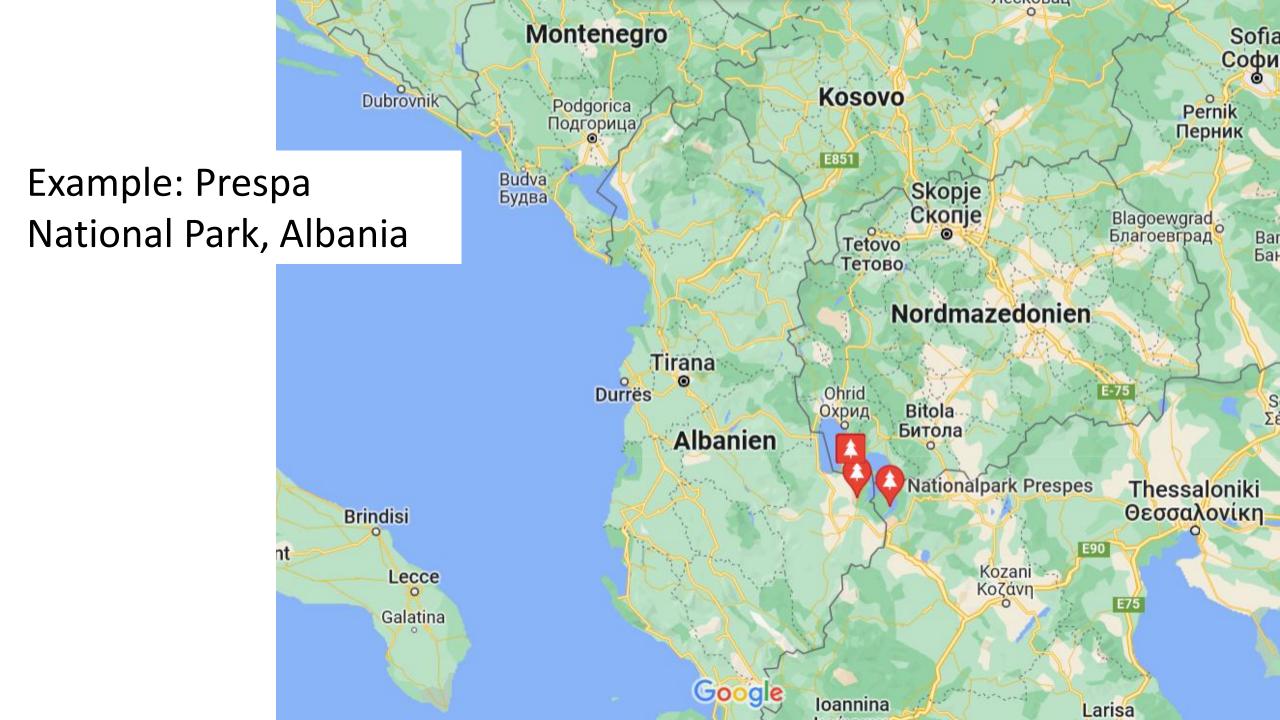
More information

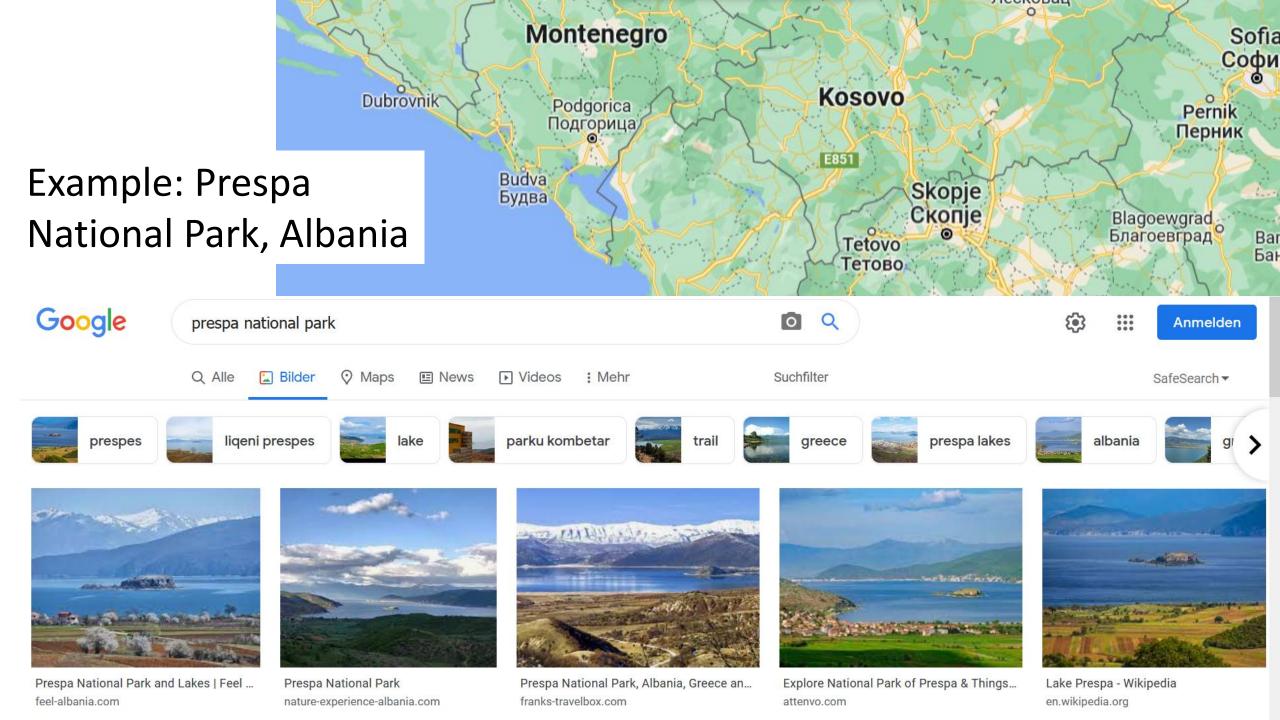
Processing of BOOKINGS

For access to this activity, a permit is necessary.

 Making your request online by clicking on the option "bookings" on the menu above

ACCESS PROCEDURE





Visitor Management in Mali Grad Island, Prespa National Park, Albania

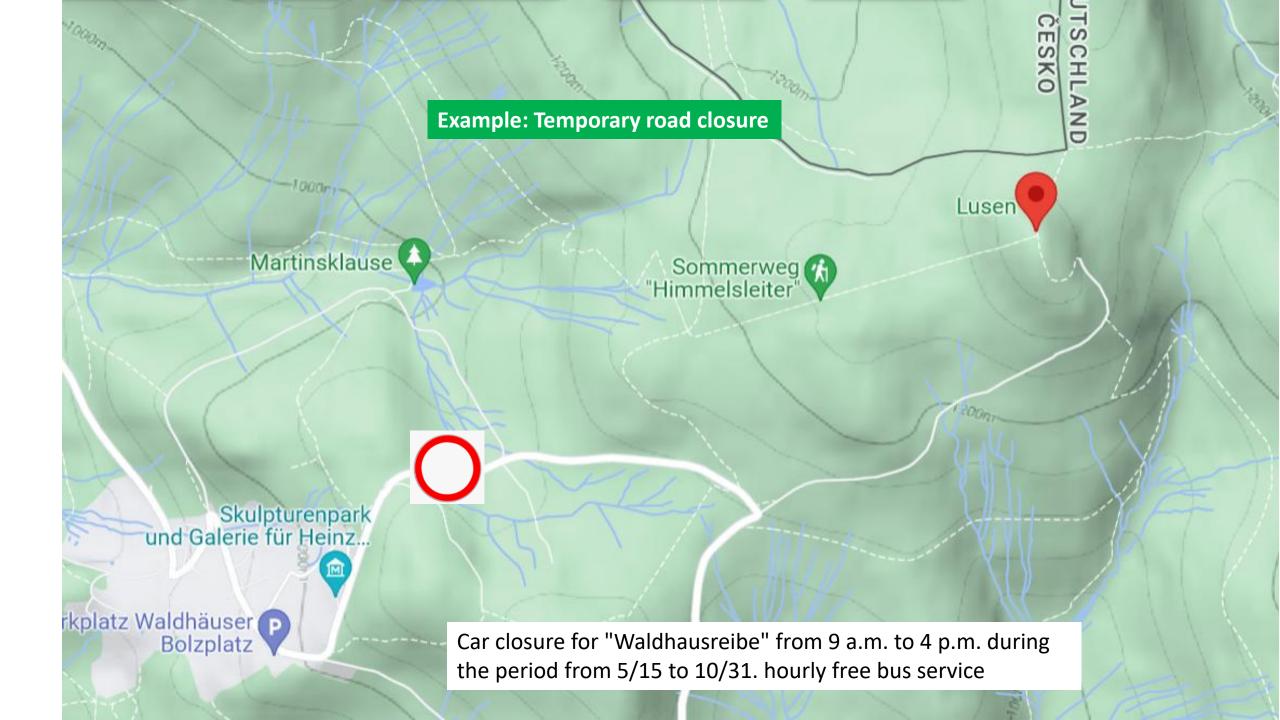


Current situation (2022): No tour operator, fishermen carry visitors to the island

Discussed options:

- Restrict access to a certain number of tourists: problem: lack of monitoring, protest from nearby villagers
- Restrict access to guided groups
- → Select and qualify guides

Zonierung NATIONALPARK Bayerischer Wald Bayerisch Eisenstein **Example: Temporary road closure** Berggipfel Nationalparkgemeinden Zonierung Stand: 01.11.2019 Naturzone Entwicklungszone 2a Entwicklungszone 2c Randbereich ZWIESEL Erholungszone //// Naturzonenerweiterung 2019 Nationalparksgrenze Frauenau Großer Rachel © 2019 Nationalparkverwaltung Bayerischer Wald Mauth St. Oswald





Example: Temporary access restrictions

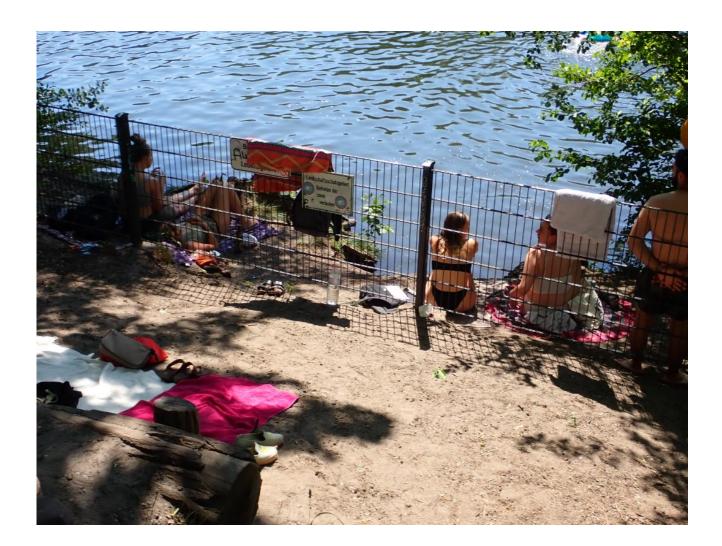
Zoning is sometimes complicated

Protected river banks

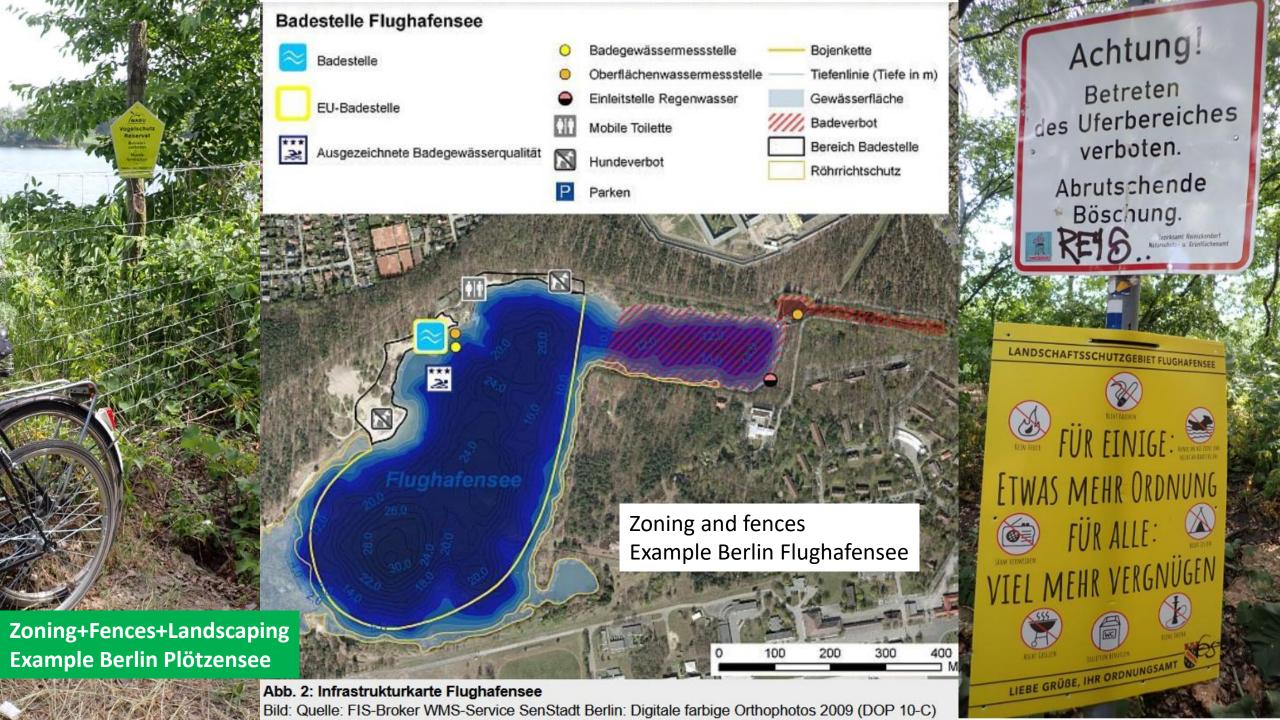
No access 15.04.-31.07. (Birds breeding season)

- Arbitrariness?
- How to communicate this?

Building Fences Example Berlin Plötzensee











Dual process models: two processes at work in judgement /decision making/ problem solving

Effortless, affective intuitive system



Effortful deliberate, intentional reasoning



Dual process models: two processes at work in judgement /decision making/ problem solving

Effortless, affective intuitive system



Effortful deliberate, intentional reasoning



Moral judgement according to Haidt:

- 1. Gut feeling (intuition)
- 2. Finding reasons to defend gut feeling (reasoning)

Dual process models: two processes at work in judgement /decision making/ problem solving

Effortless, affective intuitive system



Effortful deliberate, intentional reasoning



Dual process models: two processes at work in judgement /decision making/ problem solving



Haidt (2001): the emotional dog and it's rational tail

Dual process models: two processes at work in judgement /decision making/ problem solving



"The affective system has primacy in every sense: It came first in phylogeny, it emerges first in ontogeny, it is triggered more quickly in real-time judgments, and it is more powerful and irrevocable when the two systems yield conflicting judgments" (Haidt 2001)

Haidt (2001): the emotional dog and it's rational tail

Dual process models: two processes at work in judgement /decision making/ problem solving



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Visitor guidance through warnings





Emotional communication Example: Children adressing visitors





Emotional communication Example: (deadly concequences of) plastic pollution

How to make visitors stop littering protected areas?



National Park Gates On-sight markers "Sacralizing" space





Emotional communication Example: deadly concequences of plastic pollution



https://ornithology.com/plastic-bags-and-birds/

https://medwet.org/2019/05/world-migratory-bird-day-2019-plastic/

How to make visitors stop littering protected areas?

Emotional communication Example: deadly concequences of plastic pollution

So lange bleibt dein Müll im Wald!











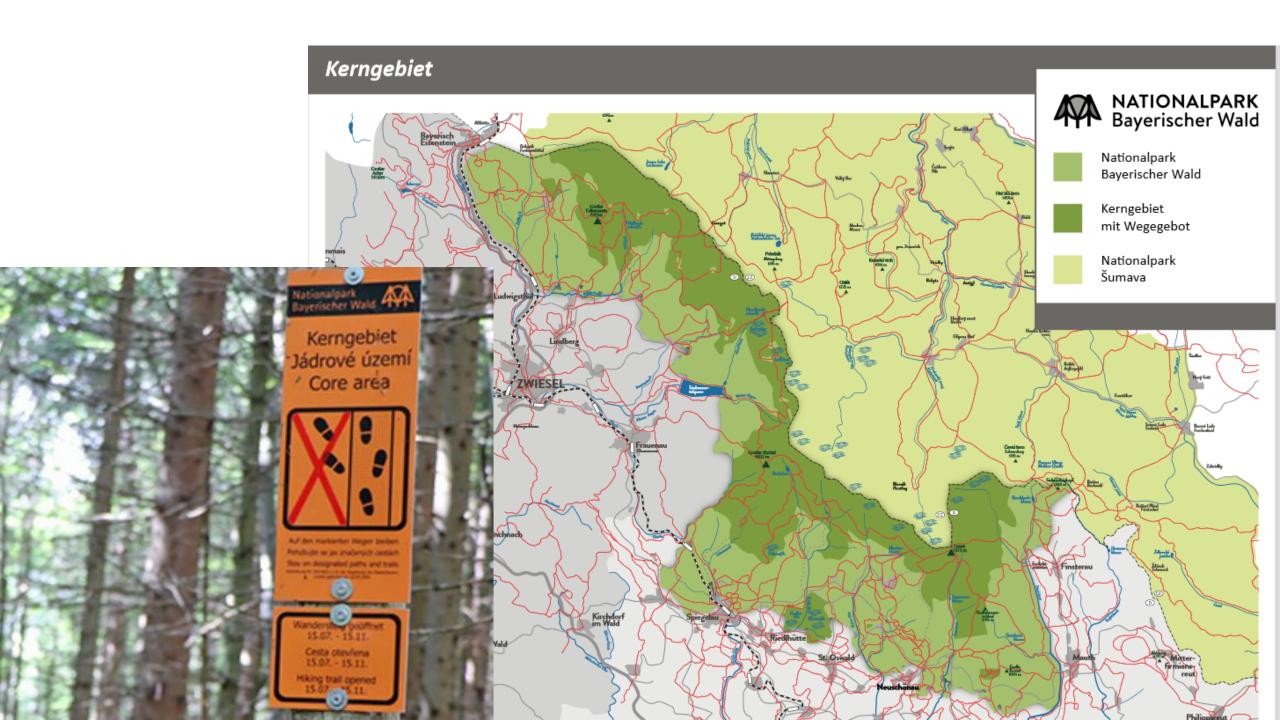
Nimm deinen Müll wieder mit nach Hause!

No trash! Tents

* entstanden im Rahmen von Freiwilligen-Projekten im Nationalpark Harz :



#FüreinesaubereNatur #NationalparkHarz







"We are raising our children here – they have to be kept warm all the time! When we have to run away from you they might die"

KERNGEBIET! JADROVÉ ÚZEMÍ! | CORE AREA! on Sie zum Schutz der Noter auf den markierten Wegen! tives the marked well et all times to probact the natural environment Danke! | Thank you! | Děkujeme! Liebe Schneechule, Stateurengeher and Wendorer, SITTE VERLASST DIE MARKIERTEN WEGE NICHT. "Surviving in winter is difficult enough for us"





Online

PA-Apps



Installationen

10.000+

Platforms





Social Media

Efficient means of communication

Restricted to followers who already share relevant values Individual-interpretation with own device

Wikipedia, BirdNet, FloraIncognita

...



Advising visitors



Olympic National Park

25. Mai um 22:19 · 🔇

Are you planning to backpack in Olympic this Memorial Day weekend? It's a great idea...and you aren't the only one to have it! Here are some pro tips for a great trip.



Instagram

Wenn Likes und Geotags die Natur zerstören

Tausende Menschen kletterten zu einem natürlichen Becken oberhalb des Königssees in Bayern, um sich in Pose für das Netz zu fotografieren. Der Run auf die perfekten Instagram-Spots macht mittlerweile vielerorts Probleme.

06.07.2021 um 14:23 Uhr - Pia Stenner - in Kultur - 3 Ergänzungen



Die Vorliebe der Instagram-Community für Infinity-Pools lockte Tausende an den Königsbach.

- Alle Rechte vorbehalten IMAGO / Roland Mühlanger

Quelle: Netzpolitik.org 2021: https://netzpolitik.org/2021/instagram-wenn-likes-und-geotags-die-natur-zerstoeren/



Vision

Wir unterstützen Menschen die Natur innerhalb aller Regeln zu genießen ohne sie dabei zu belasten.

outdooractive	MOUNTAINBIKE TOURISMUSFORUM DEUTSCHAND	M E	Nationale Naturlandschaften	Landkreis Ostallgäu	
hubermedia	green-solutions	∠ berg fex.at	neusta destination solutions	Respek <mark>tiere</mark> deine Grenzen	Zum Wohl. Die Pfalz.
Soverland in Südwestfalen	State of the state	SÖLKTÄLER NATURPARK	Bad Urach	Naturpark Karwendel	adidas
TN-Deutschland Tourismus News Deutschland		ALPENREGION TEGERNSEE SCHLIERSEE	Zugspitz Region	Deutschland Das Reiseland	Lefensonam Lechoul



Visitor Management in Protected Areas

Thank you for your attention!

