

Table 2. Overview of case studies from the selective review of academic and non-academic literature (n = 26)

Protected area (Subject of case study)	English Designation (IUCN Management Category)	State	References (Academic literature marked with *)
Acadia National Park	National Park (II)	Maine, US	Haigney, 2018
Anza-Borrego Desert State Park (Superbloom)	State Park (none)	California, US	Reyes-Velarde, 2019
Bears Ears National Monument	National Monument (V)	Utah, US	Groetzinger, 2021
Berchtesgaden National Park (Natural pool)	National Park (II)	Germany	Barth, 2020; Nationalpark Berchtesgaden, 2020; Nationalparkverwaltung Berchtesgaden, 2021; NDR, 2021; Moczek et al., 2020*
Bonneville Salt Flats Special Recreation Management Area	Special Recreation Management Area (none)	Utah, US	Knepper, 2017
Canyonlands National Park (Mesa Arch)	National Park (II)	Utah, US	Hegyi, 2019; Schreiner, 2014
Colorado National Monument	National Monument (V)	Colorado, US	Schreiner, 2014
Crater Lake National Park	National Park (II)	Oregon, US	Schreiner, 2014
Death Valley National Park	Wilderness (Ib), National Park (II)	California/Nevada, US	Schreiner, 2014
Denali National Park and Reserve	UNESCO-MAB Biosphere Reserve (none)	Alaska, US	Solomon, 2017
Fanes-Sennes-Prags Nature Park (Lago di Braies)	Regional/Provincial Nature Park (IV)	Italy	Hinterwaldner, 2019; Radiotelevisione Italiana, 2020
George Washington and Jefferson National Forests (Devil's Bathtub)	National Forest (none)	Virginia, US	Mchugh, 2016; Solomon, 2017
Glen Canyon National Recreation Area (Horseshoe Bend)	National Recreation Area (none)	Arizona, US	Haubursin, 2018; Knepper, 2017; Lake & Rulli, 2019; Simmonds et al., 2018
Grand Teton National Park (Delta Lake, Jackson Hole)	National Park (II)	Wyoming, US	Holson, 2018; Marsh, 2020; Solomon, 2017
Hudson Highlands State Park Preserve (Breakneck Ridge)	State Park (none)	New York, US	Shannon, 2018
Joshua Tree National Park	Wilderness (Ib), National Park (II)	California, US	Barringer, 2013; Cart, 2013; Clarke, 2017a, 2017b; Scharkey, 2018
Kaaterskill Wild Forest (Kaaterskill Falls)	Wild Forest (Ib)	New York, US	Shannon, 2018
Maroon Bells-Snowmass Wilderness (Conundrum Hot Springs)	Wilderness (Ib)	Colorado, US	Worby, 2017
Paria Canyon-Vermilion Cliffs Wilderness Area (The Wave)	Wilderness Area (Ib)	Arizona, US	Meinch, 2021
Rocky Mountain National Park	National Park (II)	Colorado, US	Schreiner, 2014
Saguaro National Park	Wilderness (Ib), National Park (II)	Arizona, US	Barringer, 2013; McGivney, 2019
Spring Creek Canyon Wilderness Study Area (Kanarraville Falls)	Wilderness Study Area (Ib)	Utah, US	Burkitt, 2017; Simmonds et al., 2018
Walker Canyon Ecological Reserve (Superbloom)	Ecological Reserve (V)	California, US	BBC, 2019; Plevin, 2019; Pollack, 2019; Reyes-Velarde, 2019; Winkler & Brooks, 2020*
Yellowstone National Park	National Park (II)	Wyoming, US	Knepper, 2017

Yosemite National Park	Wilderness (Ib), National Park (II)	California, US	Knepper, 2017; Schreiner, 2014
Zion National Park	Wilderness (Ib), National Park (II)	Utah, US	Schreiner, 2014

REFERENCES

- Barringer, F. (2013). As vandals deface U.S. parks, some point to online show-offs. *The New York Times*. <https://www.nytimes.com/2013/06/05/us/as-vandals-take-to-national-parks-some-point-to-social-media.html>
- Barth, S. (2020). #naturelover? So zerstören Instagram-Postings die Natur. DER SPIEGEL. <https://www.spiegel.de/panorama/yvonne-pferrer-influencerin-wird-wegen-instagram-foto-aus-dem-nationalpark-berchtesgaden-kritisiert-a-d88a4429-09e0-438d-b758-1eb39e12928b>
- (BBC) British Broadcasting Corporation (2019). Super bloom tourists cause small town 'safety crisis'. BBC News. <https://www.bbc.com/news/world-us-canada-47615535>
- Burkitt, B. (2017). Kanarraville Falls: best kept secret becomes nightmare. The Spectrum. <https://eu.thespectrum.com/story/news/2017/06/15/kanarraville-falls-best-kept-secret-becomes-nightmare/396690001/>
- Cart, J. (2013). Vandalism forces closure of Rattlesnake Canyon at Joshua Tree Park. Los Angeles Times. <https://www.latimes.com/science/la-xpm-2013-apr-08-sci-sn-joshua-tree-park-graffiti-20130408-story.html>
- Clarke, C. (2017a). If you misbehave in Joshua Tree, these neighbors will call you out. KCET, Public Media Group of Southern California. <https://www.kcet.org/shows/earth-focus/dear-tourists-this-national-parks-neighbors-have-taken-to-instagram-to-change-your-ways>
- Clarke, C. (2017b). Updated: parkour team apologizes for Joshua Tree spree. KCET, Public Media Group of Southern California. <https://www.kcet.org/shows/earth-focus/updated-parkour-team-apologizes-for-joshua-tree-spree>
- Groetzinger, K. (2021). Bears ears could see record visitation this year: advocates say that puts cultural sites in danger. KUER 90.1, National Public Radio. <https://www.kuer.org/health-science-environment/2021-04-28/bears-ears-could-see-record-visitation-this-year-advocates-say-that-puts-cultural-sites-in-danger>
- Haigney, S. (2018). How stone stacking wreaks havoc on national parks. The New Yorker. <https://www.newyorker.com/culture/rabbit-holes/people-are-stacking-too-many-stones>
- Haubursin, C. (2018). What happens when nature goes viral? Vox. <https://www.youtube.com/watch?v=Itjc14Fm-gs>
- Hegyi, N. (2019). Instagramming crowds pack national parks. KUER 90.1, National Public Radio. <https://www.npr.org/2019/05/28/726658317/instagramming-crowds-pack-national-parks?t=1621411551782&t=1628237625165>
- Hinterwaldner, S. (2019). Vom Geheimtipp zur Tourihölle. Die Neue Südtiroler Tageszeitung. <https://www.tageszeitung.it/2019/07/12/vom-geheimtipp-zur-tourihoelle/>
- Holson, L. M. (2018). Is geotagging on Instagram ruining natural wonders? Some say yes. The New York Times. <https://www.nytimes.com/2018/11/29/travel/instagram-geotagging-environment.html>
- Knepper, B. (2017). Instagram is loving nature to death. The Outline. <https://theoutline.com/post/2450/instagram-is-loving-nature-to-death>
- Lake, Z. & Rulli, M. (2019). National parks officials grappling with high volume as Instagram tourism booms: places like Horseshoe Bend in Arizona have seen a tremendous spike in tourism. ABC News. <https://abcnews.go.com/Lifestyle/instagram-tourism-booms-horseshoe-bend-national-parks-officials/story?id=64638198>
- Marsh, S. (2020). How social media and bad behavior in Covid age are leaving wild places trashed. Mountain Journal. <https://mountainjournal.org/wild-places-getting-trashed-by-bad-behavior-in-covid-age>
- McGivney, A. (2019). 'Yanked from the ground': cactus theft is ravaging the American desert. The Guardian. <https://www.theguardian.com/environment/2019/feb/20/to-catch-a-cactus-thief-national-parks-fight-a-thorny-problem>
- Mchugh, M. (2016). Loved to death: how Instagram is destroying our natural wonders. The Ringer. <https://www.theringer.com/2016/11/3/16042448/instagram-geotagging-ruining-parks-f65b529d5e28>
- Meinch, T. (2021). The paradox of internet famous wilderness. Discover Magazine. <https://www.discovermagazine.com/environment/the-paradox-of-internet-famous-wilderness>

- Moczek, N., Dworschak, U. & Klar, C. (2020). Besucherverhalten im Nationalpark Berchtesgaden – Auswirkungen von Social Media. *Natur und Landschaft*, 95(11), 492–499. <https://doi.org/10.17433/11.2020.50153853.492-499>
- Nationalpark Berchtesgaden (2020). *Instagram-Hype am Wasserfall* [Instagram post]. https://www.instagram.com/p/CBDZON3CVYQ/?utm_source=ig_embed (Retrieved: 20 October 2023)
- Nationalparkverwaltung Berchtesgaden (2021). *Gumpen am Königsbach im Nationalpark Berchtesgaden gesperrt*. [press release]. <https://www.nationalpark-berchtesgaden.bayern.de/service/presse/pressemitteilungen/pressemitteilung.htm?PMNr=20/21> (Accessed: 29 April 2023)
- (NDR) Norddeutscher Rundfunk (2021). Tod durch Selfie: Folgen des Social-Media-Tourismus. [video]. ZAPP. <https://www.ndr.de/fernsehen/sendungen/zapp/Lebensgefährliches-Selfie-Folgen-des-Social-Media-Tourismus,zapp12936.html>
- Plevin, R. (2019). Lake Elsinore isn't the only place to see poppies: here are other Southern California spots. *The Desert Sun*. <https://eu.desertsun.com/story/news/2019/03/19/lake-elsinore-isnt-only-place-see-poppies-other-southern-california-super-bloom-spots/3206866002/>
- Pollack, G. (2019). That time every influencer in LA took the same photo with wildflowers. *LAist, Southern California Public Radio*. <https://laist.com/news/every-influencer-in-la-took-the-same-photo-this-weekend>
- Radiotelevisione Italiana (2020). Pragser Wildsee nur noch beschränkt zugänglich. *RaiNews*. <https://www.rainews.it/tgr/tagesschau/articoli/2020/07>tag-Beschraenkung-Zufahrt-Pragser-Wildsee-Verkehrssperre-Parkplaetze-c48eeb23-44cb-4a2e-bce7-37cf7d2c78ad.html>
- Reyes-Velarde, A. (2019). Instagram-hungry crowds are destroying the super bloom. *Los Angeles Times*. <https://www.latimes.com/local/lanow/la-me-in-superbloom-lake-elsinore-20190314-story.html>
- Scharkey, K. (2018). Before you snap a nature 'gram this summer, think about what you're doing to the environment. *The Desert Sun*. <https://eu.desertsun.com/story/desert-magazine/2018/06/26/how-leave-no-trace-joshua-tree-national-park-your-instagram/703994002/>
- Schreiner, C. (2014). "Art" in the Parks. *Modern Hiker*. <https://modernhiker.com/instagram-artist-defaces-national-parks/>
- Shannon, W. (2018). The deadly waterfall in the Instagram age. *The New York Times*. <https://www.nytimes.com/2018/08/14/nyregion/kaaterskill-falls-catskills-deaths-instagram.html>
- Simmonds, C., McGivney, A., Reilly, P., Maffly, B., Wilkinson, T., Canon, G., Wright, M. & Whaley, M. (2018). Crisis in our national parks: how tourists are loving nature to death. *The Guardian*. <https://www.theguardian.com/environment/2018/nov/20/national-parks-america-overcrowding-crisis-tourism-visitation-solutions>
- Solomon, C. (2022). Is Instagram ruining the great outdoors? *Outside*. <https://www.outsideonline.com/culture/opinion/instagram-ruining-great-outdoors/>
- Winkler, D. E. & Brooks, E. (2020). Tracing extremes across iconic desert landscapes: socio-ecological and cultural responses to climate change, water scarcity, and wildflower superblooms. *Human Ecology*, 48(2), 211–223. <https://doi.org/10.1007/s10745-020-00145-5>
- Worby, R. (2017). Forest Service confronts a popular hot springs' overuse: rangers tackle the conundrum of protecting loved-to-death wilderness. *High Country News*. <https://www.hcn.org/articles/recreation-the-conundrum-of-loved-to-death-wilderness>