

2018 Western Pacific Wildfires | PFX Annual Summary

This annual summary aims to provide a sense of context for wildfire activity on the Western US-Affiliated Pacific Islands (USAPI) of Palau, Guam, the Northern Marianas, and Yap where fires are most frequent, due to annual dry seasons (Dec/Jan to May). However, fires can have severe impacts across all the USAPI during intense drought. Fire is a key threat to communities and native ecosystems on Pacific Islands. Fires also increase sediment run-off to nearshore coral reefs and protecting marine ecosystems is a key goal of fire management for the entire Pacific region. For a more detailed discussion visit www.PacificFireExchange.org.

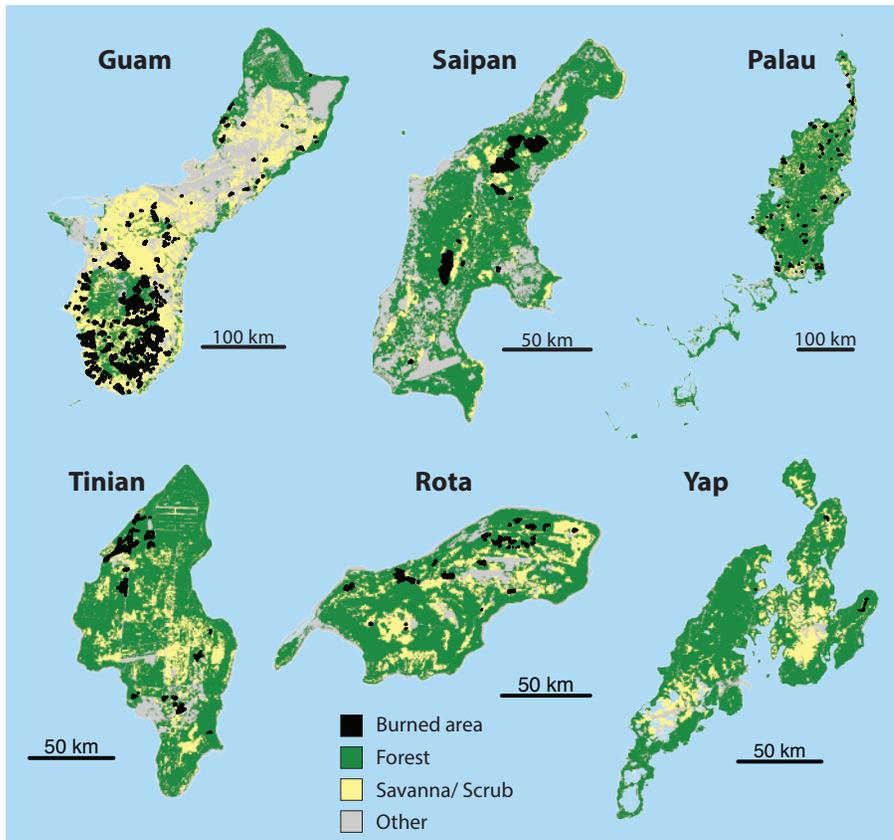


Figure 1. Island land cover, with areas burned by fires in 2018 indicated in black. Land cover data from LANDFIRE.

Island	Number of Fires	Acres Burned	Island Area Burned
Guam	468	6,251	4.7%
Annual Avg	672	4,715	3.5%
Rota	35	275	1.3%
	54	502	2.4%
Tinian	41	495	2.0%
	33	463	1.9%
Saipan	14	726	2.5%
	22	460	1.6%
Palau	137	666	0.6%
	173	724	0.6%
Yap	7	5	0.1%
	36	528	2.1%

Table 1. Data for 2018 in **bold**, annual averages in lighter font. Fire information is limited in the USAPI. Defining 'average' fire activity is difficult for some islands and continued record-keeping is critical. Guam has 27 years of fire data, Yap and Palau both have 7 years, and Rota, Tinian, and Saipan each have 3 years.

Wildfire Incidents

Guam had fewer fires but more area burned (>6,000 acres) than usual.

Palau had fewer fires and less area burned than average.

Yap was unusually wet in 2018 and saw only 7 fires burning a small fraction of the annual average.

Rota, Tinian and Saipan all had active fire years, however, longer term data is required to identify any trends.

Land Cover Pacific Island fires are largest and most frequent in open savanna vegetation, but large areas of forest edges are exposed to savanna fires each year. Intense fires kill trees and allow nuisance grasses to spread, increasing future fire risk.

In 2018, 77% to 87% of the area burned on Guam, Saipan, and Palau occurred in savannas, which much of the remaining area in nonnative forest (e.g., *Leucaena leucocephala*, *Tangan tangan*). However, burned areas overlapped with native forest for 69 acres on Palau, 42 acres on Rota, and 290 acres on Guam. Field surveys are needed to confirm impacts to these areas.

Weather Rainfall on Saipan and Tinian was well below average coming into the 2018 dry season, contributing to numerous grass fires. Yap had a very rainy dry season, which limited fire activity. For Guam, 2017 and 2018 were wetter than average, likely increasing fuel loads.

Typhoons Mangkhut in September and Yutu in October passed over the Marianas, causing severe damage and heavy precipitation. The rains lowered fire risk in the short term, but excess grass growth and downed trees and debris will increase fuel loads for the 2018-2019 dry season.

Management Activities A range of activities in 2018 sought to address fire risk. Vegetation management on Guam included removing dead trees and ladder fuels to reduce fire damage to forests and create safer conditions for firefighters. Ongoing 'greenbelt' reforestation and fuelbreaks on Guam and Yap are being established to slow savanna fires. In March, the CNMI Department of Fire and Emergency Medical Services partnered with Tinian's Department of Public Works to create fire breaks around residences vulnerable to wildfire. Rota maintained fire lanes and hydrants, and, for the past two years has limited access to the most fire-prone areas, resulting in a decrease of both ignitions and area burned. Public education and outreach, including school presentation programs, remains active across the region.

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