NEWS FROM THE ALPS E-BLAST

THE ALPS PROGRAM. WORKING TOGETHER BEYOND BORDERS.

Australian firies helping out in Alberta Canada: here ACT ranger Sam Wellings Booth from Tidbinbilla waits for a helicopter crew extraction following 11 hours of duty.

FIGHTING FAR FLUNG FIRES

Managing fires these days isn't only about being prepared for our local fire season, or even fires in other states or territories. It's evolved to feature international arrangements where we offer our expertise and skills to fire grounds much further afield. Take for example the recent deployment of hundreds of people to the fires in Canada – from South Africa, New Zealand, Australia, The United States – who joined locals from the Canadian provinces. Recently returned, the following Australian parks agency staff describe working in a very different landscape using fresh methods. But there were also surprising similarities to the Australian Alps. What emerges is how much they gained from the experience and (somewhat soberingly) how likely it is that they will be needed in the future. As the effects of climate change intensify fire in the landscape, it's good to be part of a larger collective force to call on when needed.

BEAVER DAMS & MELONS

Sam Wellings Booth is a ranger with ACT Parks based at Tidbinbilla Nature Reserve in the Australian Alps. His background is fire and he's building his environmental qualifications at Charles Sturt University. He's had experience in Australia of significant fires and made the most over the last three relatively wet years to do intensive training. With experience and advanced skills in hand, he's exactly what the Canadians were hoping to be sent when they contacted the ACT fire management unit at Stromlo requesting resources for the Alberta fires.

Spot the Canadian differences: the melons of rolled sections of hose; the Swedish Hagland personnel transporter; and the forest of spruce and aspen.

"There were 185 of us on the flight to Edmington and from there we were broken up into state and territory groups before shipping off to the fire ground. Our strike team of twenty was made up of ten ACT parks staff and ten from the ACT Rural Fire Service. We were dealing with the Kimiwan Complex Fire part of the 143,000 hectares affected with a fire edge of about 650 kilometres."

The fires were in oil drilling country which shaped parts of the experience. The tent city was created by people who usually set up mining camps. "We each had a four-man tent to ourselves; hot showers, washing machines and chefs in the kitchens." And throughout the fires, the crude oil road trains kept running in and out of the oil fields, "unless there was a fire front across the road. They had right of way – and when we had a few days rain, to stay safe while the trucks took the middle of the road, we were transported by helicopter."

While a lot was familiar to the Australians – the briefings and how the fire ground was broken up – there were many exotic twists, starting with the landscape and how it behaves when burned. Typically, Australian forest burns fast and fire moves through leaving behind a

scorched ground, with regeneration taking place from a seed bank in the ash and epicormic shoots sprouting from the trees. In Alberta the landscape was flat and covered with a mix of native spruce and aspen growing in a fens-like wet understorey of muskeg grass. Fire here burns very differently, often mostly at root level, so trees with green canopies fall when their structural roots are compromised. “We were briefed about the silent tree failure as well as the ash ovens that form underfoot.” Where Australians are familiar with large tree stumps forming ovens, the Canadian version is a more difficult to spot hot ash pit that is deadly if stepped into. Regeneration also happens in these Canadian forests through seed in the canopy of the spruce and suckering growth from the Aspen roots – but like the Australian bush, hotter more frequent fires mean regeneration is less successful.

Water from the air supports a fire fighter holding a Palowski tool working on consolidating a section of fire edge.

The tent city set up in a farmer’s field, where the sun rose at four and set around eleven at night.

Other unfamiliar aspects of the Canadian experience included the fauna. “We met fire fighters from the Cree and Black Foot nations who shared information about bush foods and the animals. There are beavers, lynx, elk, moose, black and grizzly bear, and we were told to be

more wary of a moose than a grizzly. But where we see dead animals in Australian fires, we didn't see any in Canada though we heard that there were animals who'd moved away into areas where they weren't usually found."

Fauna may have been hard to spot on the fire ground but the work of the beavers was obvious. Natural beaver dams were invaluable sources of water to be pumped onto the fire edge.

Maybe the biggest difference came down to what Sam and the team did when out on the fire ground. Instead of directly attacking a fire front, it was about stepping in to consolidate the fire edge once the fire had moved through – in other words, taking out the heat to prevent it taking off and running again. Each day, the strike force was transported close to where they would be working, walking the last two kilometres carrying a pack, chainsaws and fuel, a Palowski tool and often, rolled hoses. Where groups of trees had fallen – known locally as jack pots – they'd cut them up and disperse them. Hot spots were doused with water using a very specific method involving lengths of hose rolled into the shape of a watermelon – hence the local term, melons. "There were natural beaver dams dotted throughout, so we'd set up a hose and pump, which could be over four kilometres long with kicker pumps along the way. And at the end of this main hose we'd add two hoses to pump the water where we needed. Into one of the ash ovens we pumped 8,000 gallons and watched it boil." Laying the hoses was relatively easy on the flat terrain, often along cleared mining seismic lines, rolling sections out from vehicles.

The ACT Parks team Sam was a part of: (L to R) David Nicholson, Chris Field-Leal, Matt Cools, Wade Fuller, Chris Troth, Sam Wellings Booth, Tyler Hlawatschek (a USA Fire Operations Specialist), Mathew Gavin, (front row) Jeremy Burns, Kirsty Babbington, and Anthony Hart.

The visiting Australians tour of duty, where they were exposed to a fresh take on fire, spanned two fortnightly stretches with a two-day break in between In the town of Peace River. Which is when Sam did do a bit of souvenir shopping. He very briefly toyed with the thought of taking home a beaver hat before thinking it disrespectful to the animals who'd coincidently been so helpful in providing the water they'd needed.

FIRE's CLIMATE CHANGE CONTEXT

Past fires help us prepare for the future: here smoke plumes gather above the Nariel Valley (Victoria) during the 2019 – 2020 fires.

There are a few solid signs that the coming bushfire season could be a challenging one due to climate change…

- global sea surface temperatures were the highest on record during April to July

- July was also the hottest month globally in terms of air temperature

- which is partly why the Australian Bureau of Meteorology (see LINK), is currently forecasting warmer and drier conditions through spring and early summer across most of southern and eastern Australia.

Let's hope those hardy souls returning home from Canada have ample time to rest, recover and prepare for a challenging season ahead. The Australian Alps were heavily impacted by fire in 2003, 2007 and most recently in 2019-20. Taking a broader picture view Australia's climate has warmed by around 1.47 °C (since national record keeping began in 1910), leading to an increase in the frequency of extreme heat events. Southern Australia has also seen a 10 to 20% reduction in cool season rainfall (April to October) in recent decades. There's also been a trend* towards a greater proportion of that rainfall coming from high intensity, short duration events, especially across northern Australia. Scientists are monitoring what warmer temperatures and more frequent fires mean for vegetation dynamics in the Australian Alps (more on this in a future issue). However the way forward is clearly mapped: actively inform ourselves about these landscapes and how they are responding to climate change; adapt and prepare our fire management and fighting methods; appreciate that fire

and flood events are likely to be more extreme and happen more frequently than our records show. *due in part to changes in large-scale atmospheric circulation caused by an increase in greenhouse gas emissions.

FROM TUMUT TO ALBERTA

Matt Rostron a ranger at Tumut from NSW Parks Southern Ranges jumped at the chance to fly out to Alberta. “I thought it would be an experience, a way to see something different.” Here’s a glimpse of what he found there…

A week after Matt signed on to go to the Canadian fires, he and the National Parks and Wildlife Service crew had grabbed their fire bags and were at the fire ground. Pictured here are Andrea Morrison, Matt Rostron, Jack Bulger, Aislinn O'Neill and Aaron Watson coming home after a day working on the containment line.

On arrival, The group of twenty Australians that made up C95 crew - hailing from NSW Parks, Rural Fire Service and the NSW Forestry Group - were broken down into groups of five. Here Alpha and Bravo Crews dig up a ground fire, a foot underground: Aislinn O'Neil, Jim Boyle (RFS) Troy Chambers, Neil Coulter, Aaron Watson. Matt was struck by the fact that the Alberta landscape was more difficult to read. “In a flat landscape with tall trees and no features, finding your bearings was more difficult.”

In Alberta, with water available in the landscape from nearby beaver dams, small-capacity fire trucks like this bogged Morooka are used. Given this is a permafrost landscape, when burnt areas are cleared of vegetation – like this containment line – a muddy soup is created. Tracked vehicles like the Morooka with its rubber treads can't always cope with the muddy slush. As Matt noted, "Trying to drive over these swamps made me appreciate how easy fire access is in Australia – we have trails to drive on."

Fighting fires in other settings makes sense. Apart from sharing resources internationally and focussing them where needed, for the individual it's a great way to build skills, experience and meet others who are doing the same – everything Matt was hoping for. This is the NPWS C95 crew with the Local Slave Lake Fire Wise Crew.

TELL US YOUR STORY: We are always looking for stories to include in this newsletter. What's happening in your part of the Alps? If you've built a new bridge, cleared a track, managed pests, done vegetation restoration works or worked on threatened species recovery, why not send Dave Crea a photo and a quick line and he'll take care of the rest. Maybe you just went for a particularly fabulous walk and would like to share your experience. We're always happy to hear from agency staff members, volunteers and members of the general community.

SUBSCRIBE: WWW.THEAUSTRALIANALPSNATIONALPARKS.ORG

News from the Alps issue number 95 was published in September 2023 by the Australian Alps National Parks. Program Manager and Editor is Dave Crea, Parks Victoria, alps@parks.vic.gov.au. For more information about the Alps, including information about the Parks, other publications and news, visit the Australian web page, https://theaustralianalpsnationalparks.org You can also catch up and stay connected on current Alps related happenings and issues on the Australian Alps National Parks Facebook page: https://www.facebook.com/australianalpsnationalparks/. And many thanks to those people who've been interviewed, and to the photographers for their images. Without this support, *News from the Alps* wouldn't be possible.