

SPRATPACK

2020-21



If you are a bushwalker or sea kayaker who wants to help protect the Tasmanian Wilderness World Heritage Area coastline, habitats of threatened species and have some wilderness fun at the same time, then volunteering with SPRATS could be for you.

Who and what is SPRATS?

SPRATS (Sea sPurge Remote Area TeamS) is a self-managing, volunteer, WildCare group. For the past 14 seasons SPRATS has conducted a highly successful coastal weeding program on the 850 km of Tasmania's wild and remote west and south coasts between Cape Sorell (near Strahan) and Cockle Creek (south of Hobart). The group operates under the umbrella of WildCare Tasmania and works for the Tasmanian Parks and Wildlife Service (PWS).

SPRATS has greatly reduced the occurrence of sea spurge (*Euphorbia paralias*), marram grass (*Ammophila arenaria*) and blackberry (*Rubus fruticosus* aggregate). However, ongoing weed control is still needed in order to fully control these weeds and prevent their re-establishment.

The coastline of the Tasmanian Wilderness World Heritage Area and adjacent areas is one of the few remaining areas in Australia with low human-induced conservation threats and is globally important for migratory birds. In this area, unchecked growth of sea spurge and marram grass threatens geodiversity values, Aboriginal cultural sites, coastal herbfields, grasslands and shrublands, as well as habitats for rare and threatened species. Other than the target weeds, the region has a low weed incidence and is the Tasmanian stronghold for a number of shore-nesting and feeding birds, including the hooded plover, red-capped plover, pied oystercatcher, sooty oystercatcher, various terns and orange-bellied parrot. These bird species are at risk due to sea spurge and marram grass' ability to transform the coastline's geomorphic structure, making it less suitable for breeding and/or feeding.

SPRATS has developed and utilised a range of highly effective and targeted remote-area weed management strategies. To date, SPRATS has treated 667 sea spurge sites, 144 marram grass sites and 4 blackberry sites and in doing so removed >14 300 000 sea spurge plants, >124 000 marram grass clumps and ~400 blackberry plants. Reductions in weed numbers are >99% for sea spurge, >86% for marram grass and 100% for blackberry.

A feature of SPRATS' work program is the collection of geo-referenced data on all weeds removed, time taken to weed sites, and targeted research into the most effective treatment method. This data is used to demonstrate the program's effectiveness and plan future works, along with reporting back to funding bodies and the PWS. At the start of each weeding season, detailed maps are prepared showing weeding sites, campsites and walking routes. This data is uploaded into GPS units so that all groups can easily and efficiently locate previously recorded weed sites, campsites and walking routes.

SPRATS also assists government and university bodies with their ecological and land management research. Over the past few summers, the Department of Primary Industries, Parks, Water and the Environment has conducted a large-scale project researching the diet and genetics of Tasmanian devils, with SPRATS crews being responsible for about 90% of field samples collected.

In 2016, SPRATS received the Invasive Species Council (Australia's peak NGO focused on protecting the environment from invasive species) Froggatt Award for Control and Eradication¹. In 2015 SPRATS were put forward as a case study demonstrating the effective use of volunteers for environmental work². SPRATS won the community group category of the 2009 Tasmanian Environmental awards and were shortlisted in the community group category of the 2009 and 2010 national Banksia Environmental awards.

At its inception, SPRATS detailed its aims and objectives in a 10-year plan³ covering the period 2007/08 to 2016/17. The aims and objectives in this plan were met and a new 10-year plan⁴ developed covering the period 2017/18 to 2026/27. The current 10-year plan has been endorsed by the PWS. Objectives in the 10-year plan are organised into two stages.

¹ See: <https://invasives.org.au/froggatt-awards-2016/>

² A Collective Effort 2010–12: A report on progress of the Natural Resource Management Strategy for Southern Tasmania 2010–15. Natural Resource Management South, Hobart, Tasmania.

³ Controlling coastal weeds in Southwest Tasmania: a 10-year plan to protect coastal environments of Southwest Tasmania from ecosystem-threatening weeds. SPRATS 2007.

⁴ SPRATS: review of 2006/07 to 2016/17, plan for 2017/18 to 2026/27. SPRATS 2018.

Stage 1 objectives - finalise weed eradication at all sites:

1. Continue the program along the entire coastline between Cape Sorell and Cockle Creek;
2. Check all potential sites for sea spurge and/or marram grass;
3. Fully weed all sites each season until residual seed banks are exhausted.

Stage 2 objectives - once stage 1 objectives have been achieved, perform surveillance for new weed occurrences and/or missed populations:

4. Perform biennial or triennial surveys of all recorded sites;
5. Fully weed all sea spurge and/or marram grass found.

During Stage 1, annual weeding by SPRATS teams will continue. In Stage 2, biennial weeding will be required for an estimated four to six years, after which the weeding frequency will reduce to triennial.

What are sea spurge and marram grass?

Sea spurge is a small leafy shrub originally from Europe and now found across much of the coastline between southern WA and central NSW. Sea spurge colonises sand and cobble beaches and may spread inland across dune systems, transforming dune geomorphology and associated ecosystems.

Sea spurge plants produce large numbers of saltwater-tolerant seeds which can float to infest new sites. Once established, colonies increase in size very rapidly, swamping entire beaches and fore dunes within a few years. Sea spurge has an overall yellow-green colour, grows to about 70 cm in height and has multiple stems covered in small, closely packed leaves. On the west and south coasts of Tasmania, sea spurge starts flowering from mid December and typically has seeds present by early February, although it may produce seed by early January if the weather during spring has been warm and dry. When broken or crushed, sea spurge stems produce a toxic white milky sap. This is important for identification as sea spurge is the only coastal plant in Tasmania to do this. Gloves and protective glasses are supplied to SPRATS volunteers, as care should be taken to avoid contact with the sap.

Now that SPRATS has reduced all of the previously very large sea spurge infestations that occurred in its weeding area, weeding can be easily achieved using the 'pull and drop' method.

Marram grass is a perennial grass which was originally widely planted for stabilising coastal dunes but is now considered to be a highly invasive weed. Marram grass colonises new areas by germination of seeds and vegetatively from plant fragments carried by ocean currents.

Marram grass is weeded using two techniques. Small clumps may be dug out provided care is taken to get as many of the small roots as possible. This technique is slow but highly effective. Where large numbers and/or large clumps occur, the only practical eradication technique is herbicide spraying, requiring multiple sprayings over several seasons. The herbicide *Verdict* (haloxyfop-R methyl ester) is used. Although it is helpful to have spraying experience and qualifications, this is not essential.



A young sea spurge (left); mixed sea spurge and marram grass (right).

SPRATS aims and program for 2021

In 2020-21 we will continue our emphasis on both sea spurge and marram grass eradication.

Selection of participants will be governed by Covid 19 travel and social distancing restrictions outlined in the Covid section below.

If you are travelling from outside Tasmania it is your responsibility to meet Tasmanian Covid entry requirements which may include two weeks of mandatory hotel quarantine at your cost.

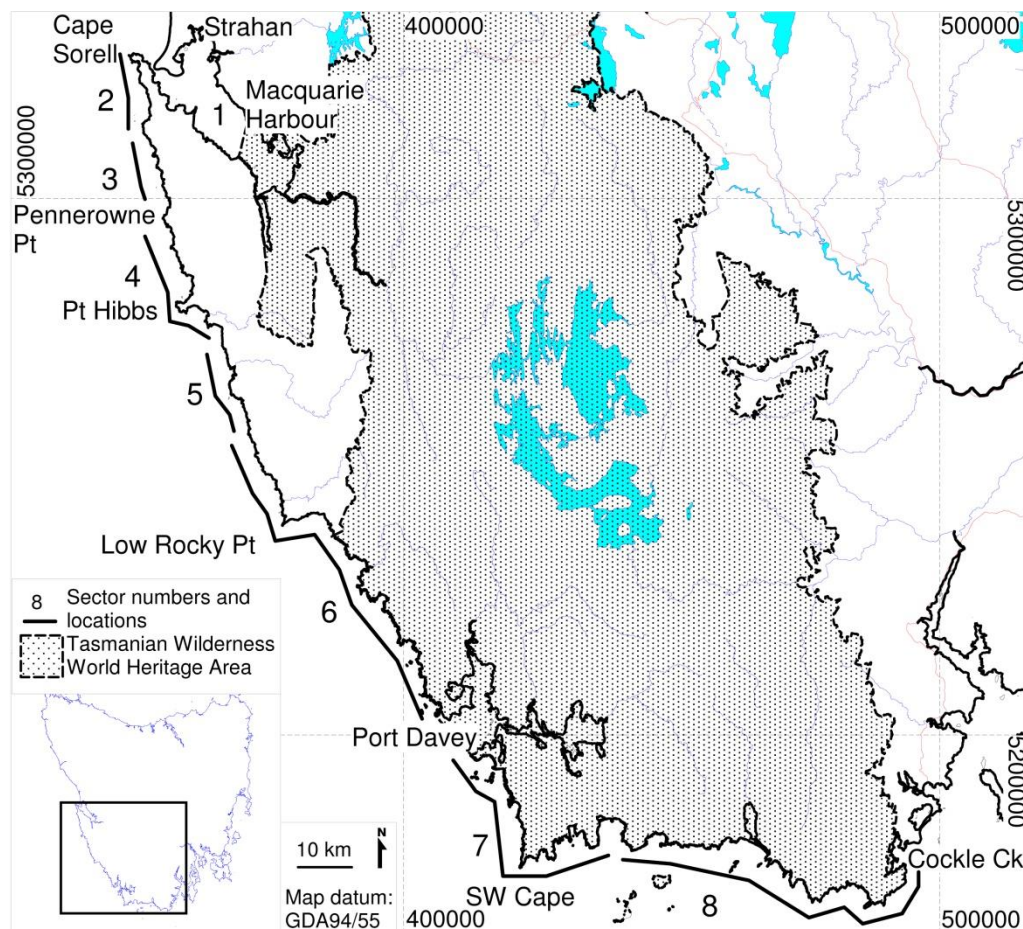
A total of six teams of four or five people will be required in sectors 1, 2, 3, 4, 6 and 7.

The SPRATS program will start with a compulsory briefing on the day before deployment. For sectors 1 to 6 the briefing will be in Strahan at 3pm on Saturday 2 January 2021. For Sector 7 the briefing will be in Hobart at 3pm on Thursday 21 January 2021. *If you are unable to attend the briefing, we will NOT be able to deploy you into the field.*

Sector 1 will use kayaks to visit beaches inside Macquarie Harbour. Sectors 2 to 7 will be bushwalking sectors with insertion and extraction utilising helicopter, fixed-wing aircraft and boats. Insertion of sectors 2 to 6 will be on 3 January 2021, with sector 2 starting at Sloop Point, sector 3 at Nielson River, sector 4 at Endeavour Beach and sector 6 at Rheuben Creek. Extraction of sectors 2 to 4 back to Strahan by boat will be on 14 January, while extraction of sector 6 will be from Garden Point in Port Davey by float plane on 22 January. Sector 7 will be flown into either Schooner Cove in Bathurst Channel or Spain Bay in Port Davey using the float plane that picks up Sector 6. Sector 7 will finish at Melaleuca on 29 January and be extracted by plane unless the party decides to walk out along the South Coast track and in doing so, also complete Sector 8.

Whilst it is desirable that sector 1 is run in conjunction with the main program, due to it being a standalone kayak sector, with the agreement of the PWS it could be run at a date of the participants choosing. However, the briefing for sector 1 briefing remains a compulsory part of the program and will be held on the day before the deployment date.

Sector locations and proposed deployment dates are as follows:



SPRATS weeding sectors between Macquarie Harbour and Cockle Creek.

People required in different sectors, trip duration, transport used and sector difficulty

Sector	People	Days	Field dates*	Transport	Difficulty	Notes
1	4 or 5	~6	03 to ~8 Jan 20	own boat or kayaks	mod	Macquarie Harbour
2	5	12	03 to 14 Jan 20	heli in, boat out	mod	walking south to north
3	5	12	03 to 14 Jan 20	heli in, boat out	mod	walking south to north
4	4 or 5	12	03 to 14 Jan 20	heli in, boat out	hard	walking south to north
6	4 or 5	20	03 to 22 Jan 20	heli in, plane out	very hard	walking north to south
7	4	8	22 to 29 Jan 20	plane in and out	hard	SW Cape circuit

- pre-deployment briefing at 3 pm on the day before deployment which is compulsory for all participants;
- field start and finish dates may be delayed by adverse weather;
- Sector 1 can deploy at dates of the teams choosing subject to PWS agreement.

Sectors 5 and 8 will not run this season due to their low number of weeds. However, there are a few locations in these sectors that need weeding and so if you or anyone you know is planning to walk these sectors please get in touch so we can provide maps and brief you on what areas need weeding.

Is SPRATS for you?

If you are an experienced, self-reliant remote-area bushwalker or sea kayaker who wants to spend time on some hard-to-access coast and put something back into the environment, this may be for you.

All participants must provide all their own personal equipment and food and in the case of sector 1, their own kayaks. The likelihood of prolonged rain and wind means that good quality tents, thermals, jackets and solid footwear is required for all sectors. SPRATS will supply weeding equipment, some satellite communicators, some emergency beacons, pre-programmed GPS units and laminated 1:50 000 topographic maps showing weed locations, walking routes and campsites.

Selection of participants

To minimise the risks, all participants must be adequately experienced and capable of comfortably completing their entire sector. Furthermore, each party needs a mix of people variously skilled in leadership, navigation, first aid and bush regeneration. In each sector it is essential that at least one person is familiar with that sector along with the identification of marram grass and sea spurge.

When you submit your expression of interest form please be honest about your capabilities and skills. If you haven't been a SPRAT before, please consider whether your skills match the requirements of the sectors you are considering, particularly for sectors 1, 4, 6 and 7.

Please be accepting when the organisers allocate you to a sector. Some sectors are normally oversubscribed and fair selection criteria will be used. In addition, this year SPRATS organisers need to consider Covid travel and social distance regulations. All parties need to have the necessary mix of skills and experience. In the event some sectors are oversubscribed, preference may be given to experienced SPRATS who have "done the hard yards" in other sectors. Where you would like to be paired with other specific people, please specify this in your expression of interest and wherever possible, we will allocate you to the same sector.

Covid travel restrictions and social distancing

SPRATS deployment will be governed by the Tasmanian Government and PWS policy requirements for travel and social distancing that are in place at the time of deployment. SPRATS organisers are mindful that regulations could change rapidly in the event of the disease escalating in Tasmania and/or elsewhere during the lead up to January 2021. SPRATS volunteers, particularly those coming from outside Tasmania, must also take into account travel risks when expressing interest. SPRATS cannot cover quarantine costs. Organisers have the following guidelines in place for team selections.

- In sectors 1 to 6 preference will be given to people already present in Tasmania.
- Mainland volunteers will be given priority for sector 7 which, if cancelled, will have the least impact on our overall objectives for 2021.
- For Sectors 2 to 6, there will be a minimum of 4 Tasmanians per sector which will ensure these sectors remain viable should mainland participants be unable to participate.
- If the program needs to be partially curtailed at short notice, the priority for bushwalking sectors in descending order is: sector 3, 2, 4, 6 and then 7.

Expression of Interest

If you have any questions, please contact Jon Marsden-Smedley (0456 992201 or sprats.tas@gmail.com) prior to nominating.

Please return your expression of interest (EOI) form (attached Word document) before 27 Sept 2020. Sector allocations are planned to be offered by mid-October but could be delayed if Covid regulations seem dynamic at that time. Allocation of people to sectors after these dates will only be possible if places become available so in order to ensure your involvement please get your EOI in by the closing date. When you fill out your EOI, please save the file as YOUR NAME_SPRATS_EOI.

Apart from emergencies, early extractions are not possible. Participants must therefore commit to the full duration of their sector.

Briefing

The pre-deployment briefing is needed to keep all participants safe and to cover operational specifics. Briefings are compulsory for ALL participants. For Sectors 2 to 6 the briefing will take place in Strahan commencing 3pm on 2 January 2021 and for sector 7 in Hobart at 3pm on 21 January. Sector 1 briefing will be at Strahan at 3 pm on 2 Jan 2021 unless an alternative date has been specifically arranged. If you are unable to attend the briefing, we will NOT be able to deploy you into the field.

Sector details

All participants must have recent experience in multi-day trips, preferably under Tasmanian conditions. Experience in botany or bush regeneration (especially involving sea spurge or marram grass) is an advantage but not essential. Sectors 4, 6 and 7 require particular competence and experience in extended off-track walking and/or the ability to swim rivers with a pack. The sector 1 team requires open water kayak skills and their own boats.

Sector 1 - Beaches in Macquarie Harbour

This sector calls for a party of four or five experienced sea kayakers with their own boats. Kayaks are more suitable than power-boats for checking the numerous beaches due to the shallow water in much of Macquarie Harbour. The sector starts and finishes at Strahan. Commencing in the field on 3 January (although this start date could be flexible, depending on the party involved), the party will circumnavigate the Macquarie Harbour shoreline to inspect all internal beaches. Estimated duration is six days. Deployment dates and duration can be varied by the team with agreement from PWS. There are only small infestations known inside the Harbour. A two litre Verdict sprayer or dabber kit will be taken. Birchs Inlet, Gordon River and King River are low weed risk so do not need to be checked but may be visited if desired. Although the task is entirely inshore, Macquarie Harbour is shallow and frequently experiences rough conditions with steep breaking waves. The party will need to demonstrate that they can safely operate in these conditions.

Sector 2 - Sloop Point to Cape Sorell, and Pilot Beach in Macquarie Harbour

This sector calls for a party of five people for 12 days, starting on 3 January and finishing on 14 January. It involves moderate difficulty backpacking and weeding. Transport will be by helicopter to Sloop Point and by boat from Macquarie Heads. The team will use two 15 litre backpack sprayers which are stored in a box onsite at Dunes Beach and carry a 2 litre sprayer for the rest of the sector. The party will work from south to north with most walking being along coastline of variable difficulty. The sector is rated as having moderate difficulty because participants need to be confident scrambling over some rocky sections while carrying their packs. No significant river or creek crossings are involved. The party will conclude by spraying Pilot Beach using a 15 litre sprayer which will be dropped off during the flight in. Walking with packs will be between base camps with weeding and searching done as out and back trips. There will be no food dump because the party will spend the first three or four nights camped at Sloop Point before proceeding north.

Sector 3 - Nielsen River to Gorge Beach, then walk out to Butt of Liberty in Macquarie Harbour

This sector calls for a party of five people for 12 days, starting on 3 January and finishing on 14 January. Transport will be by helicopter to the Nielsen River and exiting by boat from Butt of Liberty in Macquarie Harbour. The once huge sea spurge sites in this sector have been greatly reduced, but thorough searching of large dune systems is still required. The team will carry a 2 litre sprayer throughout and use a 15 litre backpack sprayer which is stored in a box at Discovery Beach. The party will work from south to north along easy to traverse coastline. Walking with packs will be between base camps with weeding and searching done as out and back trips. Although walking is mostly easy, the spraying effort and ~12km exit walk make the sector moderate difficulty. One food drop will be left at Discovery Beach during the helicopter insertion. Multiple nights will be spent camped at each of Nielsen River, Discovery Beach and Gorge Point.

Sector 4 - Endeavour Beach to Birthday Bay, then walk out to Butt of Liberty in Macquarie Harbour

This sector calls for a party of four or five people for 12 days, starting on 3 January and finishing on 14 January. Transport will be by helicopter to Endeavour Beach, then walking and weeding north to

Birthday Bay before walking out over two days to the boat pickup at the Butt of Liberty in Macquarie Harbour. Some of the walking is very scrubby and there are extensive sections of difficult coastal rock-hopping. The team has areas of marram grass to treat on Endeavour Beach and elsewhere so will carry a 2 litre hand sprayer. The Spero River must be crossed which is normally a knee-deep wade but may be a 50 metre swim with packs if the river is in flood. One food drop will be left at Varna Bay during the helicopter insertion.

Sector 6 - Rheuben Creek to Garden Point in Port Davey

This sector calls for a party of four or five people for 20 days, starting on 3 January and finishing on 22 January. Insertion will be by helicopter to Rheuben Creek, with food drops being put in at Pophole and Wreck Bay. An herbicide dabber kit will be carried throughout. Extraction to Hobart will be by float plane from Garden Point in Port Davey. Few weeds are expected, but finding and dealing with them is extremely important. Although much of the sector is of moderate difficulty walking, the sector is regarded as being very difficult because it is remote, very long and committing. It has extended patches of very thick scrub and difficult rock hopping. There are five major creeks and rivers that need to be crossed with your packs, some of which normally require swimming. The reward is some of Tasmania's most beautiful beaches, bays and buttongrass moorlands.

Sector 7 - Southwest Cape circuit

This sector calls for a maximum of 4 people for 8 days, starting on 22 January and finishing on 29 January. Transport will be by float plane from Hobart to either Spain Bay in Port Davey or to Schooner Cove in Bathurst Channel. The party will then walk and weed from Spain Bay to New Harbour via Stephens beach, Noyhener Beach, Windowpane Bay, across the extremely exposed Southwest Cape Range, Ketchem Bay and Wilson Bight. Although relatively few weeds are expected, major sites have been recorded in past years at Stephens Beach. Extraction will be by plane from Melaleuca unless some or all of the party wishes to walk out to Cockle Creek and check the few sites in Sector 8.

Transport to and from Strahan

For those who need it, carpooling to Strahan from Hobart or the Northwest Coast may be available, leaving early on the morning of 2 January. This means that anyone arriving from interstate for the first deployment will need to be in Tasmania and through quarantine by the evening of 1 January. Similarly, carpooling may be available after extraction. Mainlanders booking flights must take into account quarantine requirements and should consider a flexible ticket. For the return flight it is prudent to allow leeway of at least two days in case extraction is delayed by bad weather (as has occurred in the past). SPRATS cannot be responsible for missed flights or quarantine costs.

Accommodation in Strahan

Consistent with social distancing requirements in place during January, indoor camping accommodation (PWS floor space) is provided in Strahan. Accommodation is not provided in Hobart though some Hobart SPRATS people may offer billet accommodation.



Tasmanian devil with joey spotted at Varna Bay in sector 4 in 2019-20.