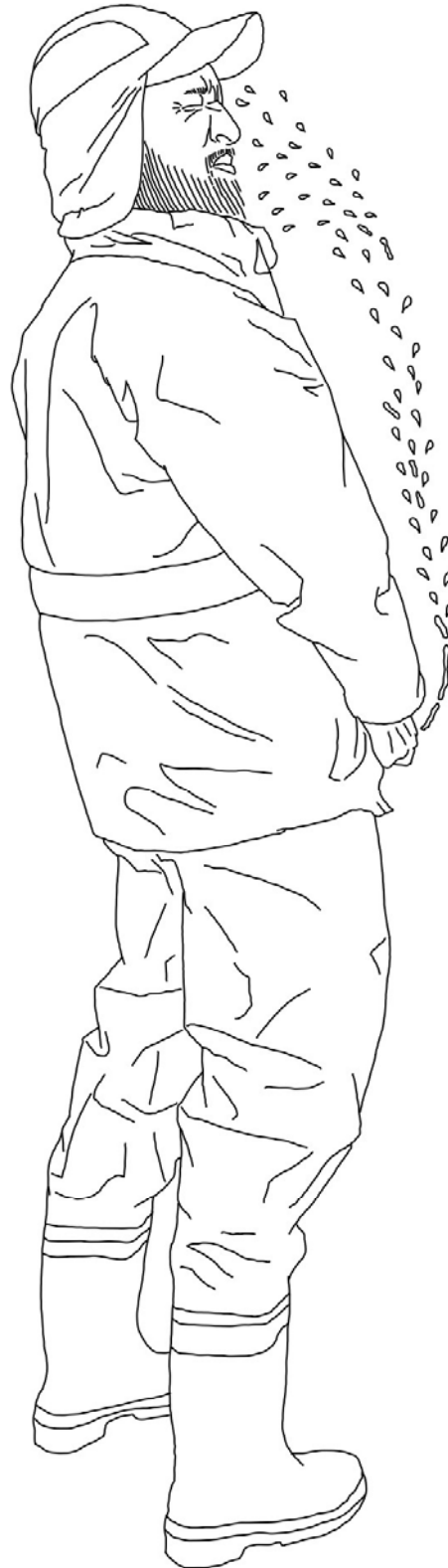


The Field Assistants Guide to Marion Island



Version 1

- 3 Foreword
- 4 Prepping for your expedition
- 8 Information on Trails
- 9 Map of Marion Base and surroundings
- 10 List of Marion Fauna
- 12 List of Marion Koppies
- 14 List of Marion Flora
- 17 References

“Talk of ex-solidiers, give me ex-antarctics, unsoured and with their ideals intact. They could sweep the world”

- Apsley Cherry-Garrard, *The Worst Journey in the World*

Welcome to your new home in the Southern Ocean. This document serves as a guideline to anyone who visits this soggy rock in the sea with the intention of having an adventure of a lifetime. Informed by experiences of the islanders that preceded you, *The Field Assistants Guide to Marion Island* will quell the fears of a nervous islander-to-be. Beyond the extreme environment and tough job descriptions, overwintering on Marion has the potential of being a life-changing experience. Make the most of it, it goes quick.

—Zaf

It's encouraged to update this document every year with more accurate information and to keep up with the rapidly changing experience that is overwintering on Marion Island

Gear List

- Dry bag** This will line your daypack and overnight bag to keep your stuff dry, 1x20l bag should suffice
Recommended Brands: Sea to Summit
Note: Heavy duty black bags are a great alternative and in ample supply at Marion Base
- Flask or insulated water bottle** Hot bevs are an essential part of life on Marion. Flasks are great for a pick-me-up in the field or just to keep drinks warm around base
If you're an enjoyer of hot beverages consider bringing a small flask for base (>1l) and a big one for fieldwork (2l)
Note: there are large flasks available for general use
- Quick-Dry top** The issued winter shirts will keep you warm and serve as a good all-round layer, however they soak up water like a sponge. A tech-wear shirt to wear over your thermal layer is very useful for field-work and overnight trips. Long sleeve or short sleeve, up to you
Recommended brands: K-way
2 pairs
- Expedition gloves** A thick pair of gloves is indispensable in winter when the chill hits your bones. These can be pricey but you may be glad to have them
Recommended brands: First Ascent, KWay
1 pair
- Glove Liners** These are thin gloves you can wear underneath work gloves or rubber gloves for extra warmth. They don't have to be anything fancy, they'll get chewed up by Marion
Recommended brands: Quechua from Decathlon
3-5 pairs
- Polar buff** A fleece lined buff is super-useful in winter and cold days to protect and exposed neck from wind chill
1 pair
- Headlamp** Very important for hut nights, when nature calls you need to be able to answer. 2 pairs are recommended if one breaks (likely)
Recommended brands: Lumeo
2 pairs
Note: headlamps are issued to some field assistants, consult your programme coordinator
- Sleeping bag liner** Sleeping bag liner: a protective layer more than anything else, not everyone uses them but they're nice to have
Recommended brands: KWay Cool Liner
1 pair

- Pocket knife** Useful for most things, one with a screwdriver if you're working with devices
Recommended brands: Torkcraft (cheap and durable)
- Watch** A must have, consider getting one that can track steps. Otherwise, you can't go wrong with a classic Casio (waterproof ofc)
- Windbreaker** An extra layer that packs really small. Highly recommend to keep that wind-chill and pesky rain squalls at bay. Doesn't have to be anything fancy, even the non-waterproof ones are useful
1 pair
Recommended brands: KWay
- Inner soles** Gumboots aren't very comfy, inner soles are recommended for comfort on those long walks. Get ones that match your arch, high arches will suffer dearly without them
recommended brands: Airplus Ultra Work, SofComfort Cushioning Gel
3-5 pairs should suffice
Consider getting a few foam and gel pairs to mix and match, your feet will change through the year
- Electronics** A bluetooth speaker (JBL Go 3): for those hut tuuuuunes
Waterproof headphones: for those poddies
EReader for hut nights (if you want, huts have small book collections)
A hard drive is essential for all the media youll amass on the island.
The Toshiba CanvioBasics range is affordable and works great
- Headwear** Extremely personal, this will be your signature. Anything that covers your ears and keeps your hair out the way. People with long hair often just wear a buff like a headband over their ears. Peak caps are a popular choice, again paired with a buff. Wide brim hats don't pair too well with the wind, but floppy hats work.
- Camera** Bringing your personal point and shoot, GoPro or DSLR is a great idea. Keep them safe, a 4l dry bag can be used to store electronics or attach directly to the strap of a DSLR to keep it dry in the field. note: cameras are issued to some field assistants, consult your programme coordinator
- Check Decathlon online or Cape Union stores

Pack guide

Your pack is your life, make sure to get something that you'll be comfortable wearing 8-16 hours a day. It needs to have good hip support and a decent capacity. Many opt to have two packs, a daypack and an overnight bag. Day packs can be anything from 30-45l and overnight bags can range from 40-60l. If you're a light packer you could use a 40-45l pack as both your day and overnight packs. Packs are quite personal and everyone uses them a little differently.

Note: There are packs of all shapes and sizes available on the island for general use.

Good brands are Osprey, Sea to Summit, KWay

Jacket Guide

The SANAP issued jackets will serve you well but they are far from perfect. It may be nice to have another jacket, however these can get very expensive. A jacket needs to be light, fold small, durable and most importantly waterproof, nothing fancy. Avoid fleece lined jackets, look for just a waterproof shell. Ideally something with pit-zips and netted pockets for breathability. At least 10000 mm protection.

Recommended brands are Wedze, Hellie Hansen, they're durable and affordable.

Base Life

Consumables

5-8 tubes of toothpaste

3 toothbrushes

4-8 bars of soap

2 pairs of nail clippers

300 wet wipes (some biodegradable wipes for the field :0)

1 tub of Vaseline (works better than most things)

4 sticks of roll on

3 luffas or body scrubbers (you'll be scrubbing yourself a lot)

2 nail brushes

Vitamin D supplements and Magnesium may be good to bring. Probiotics and Multivits are provided (mostly)

Protein powder: even if you don't want to get jacked bring some. Bring more than you'd expect

An electric shaver

your own mug (they are provided but if you're anything like us you'd want a bowl too ;)

The above is just a recommendation of the quantities you may need, it seems a bit low but most people seem to overbuy when it comes to consumables. Get a year supply of all your cream, shampoo and other cosmetics. Marion Base can be quite dry, lotion may get used more than usual

Clothing

A gown

Comfy clothes you don't mind wearing for a few days

Comfy pants

A few good beanies

Cosy socks

2 pairs of crocs (yes 2)

A comfy jacket or jersey (it's quite warm inside, most wear the issued polar fleece)

Bring things to decorate your room. Fairy lights, rugs, tapestries (nothing that needs to be nailed to the wall). A cosy room is a sanctuary after a long trip

Bring some gimmicks: party pants, funny shades, funny outfits, disco ball etc. Team events may call for it.

Issued gear advice

If you have the option don't pick the First Ascent rain jackets, they are less durable and not very waterproof. Look for original KWay blue SANAP jackets, it will say KWay on the outside by the nape

The black and grey SLK Falke socks are far superior, avoid the colourful socks. Talk them into issuing more socks to field personnel.

The first ascent black rain pants are great, try get 3 pairs if you can.

Boot Guide

Don't be afraid to size up, most prefer loose boots to reduce chafe. Even if you're not sure, get a few pairs of a larger size.

Picking boots

Avoid Stimela Boots. Only get Wayne Brand boots, they're comfier and last longer.

Wayne Egoli: most popular boot choice. They have a cream sole. There's a few versions, try find the newer pairs, the ankle patch will be textured like sandpaper

Wayne Grippers: they have a black sole, good boots all round

(If you see white Shova butcher boots just grab a pair for fun)

General Advice

Download all your media

- .mp3 files for all the music you think you could ever listen to in a year. Spotify and Apple music will fail you
- Lots of movies you love, all the comfort films, nostalgia goes a long way when you're far from home
- Ebooks and podcasts for those long walks
- Don't rely on Office 365, download open source software like Office Libre
- Set up a Mega account to trickle download files uploaded to the cloud
- Download Gaia to track your movements around the island

Don't bring fruit to the island

- Apple devices suffer in the bad internet environment. Getting a spare phone with WhatsApp is highly recommended
- Email doesn't work very often, so make sure that all your correspondence can be done on WhatsApp

If you're on PayAsYouGo leave your simcard at home in a phone that is charged all the time and receiving messages to avoid losing your number

Give somebody you trust and are easy to contact complete access to your bank, bank access is very limited on the island

Sort out all your merch now!

You'll need 2 buffs and 2 badges to give to your takeover team and your relief team and then some for yourself

Sort out all your sponsors now!

- Try Crocs and Futurelife
- Sponsored alcohol is essential for team morale, try Darling brewery, Shackleton, Albatross Vodka, SAB, Drifters or any other local brewery

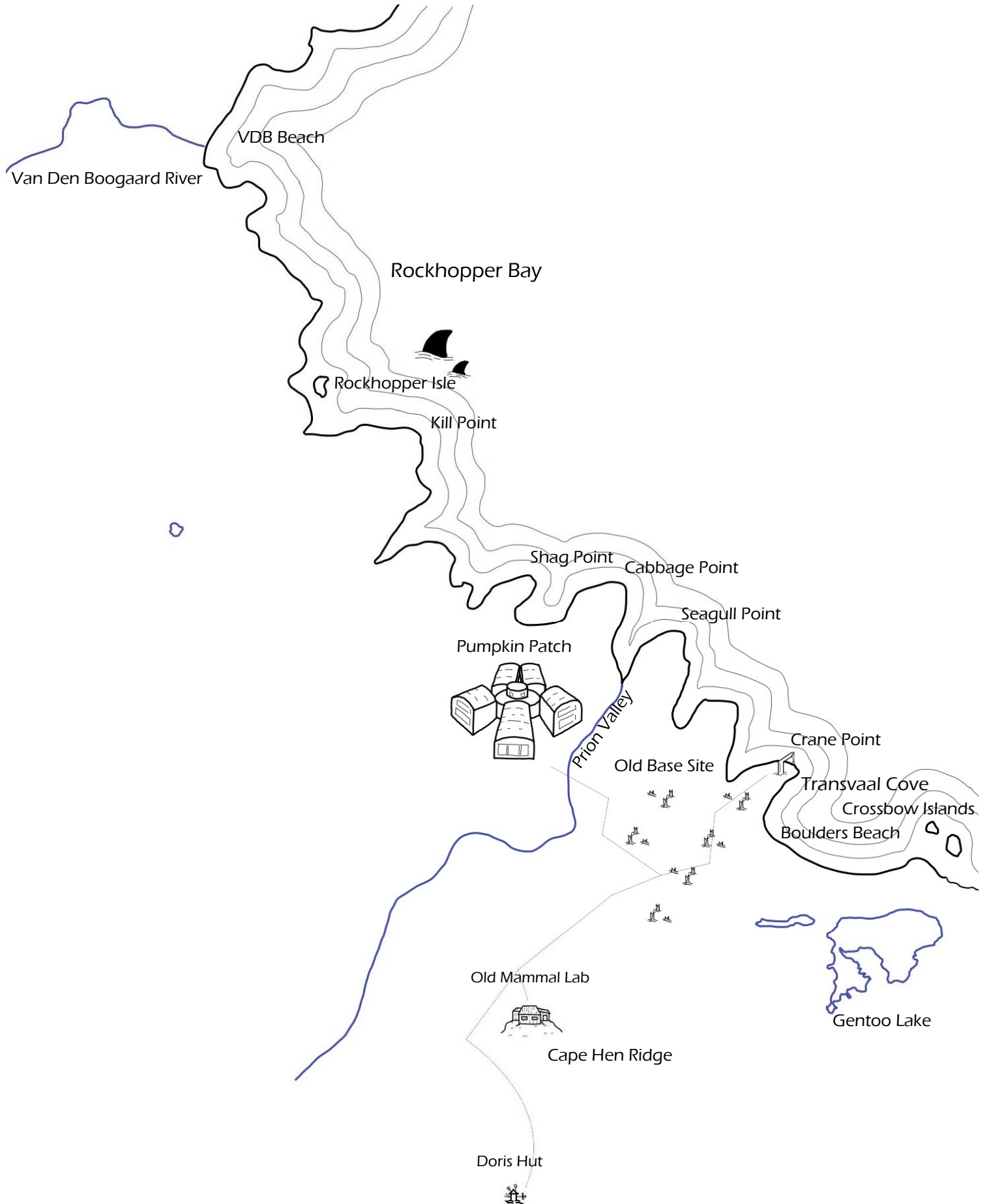
With an average 15min/km pace (with some wiggle room)

Inland routes

Base—KT	3h00	via Tafelberg
Base—RP	3h00	via 3rd sister and inland edge of Prinsloomeer
Base—KD	2h45	via Stony Ridge, no trail from SR to hut
Base—WT	5H30	via Black Haglet and Rooikasteel
KD—WT	2H45	via Johnny's Hill and coastal of Boulder to Rooikasteel
WT—GH	1H00	via Santa Rosa Valley (follow trail NB)
GH—RK	1H30	via GH Ridge along Rooks Rise
RK—SK	3H00	inland of Toffee Lava and inland saddle of La Grange
SK—MP	2H30	via Kaalkoppie and inland of Kampkoppie
MP—CD	4H00	coastal of Azo to Rondekop (no trail, often misty)
CD—RP	1H15	easiest walk on the island

Other routes

Base—Bullard	1h30	via Tom, Dick and Harry and Stony Ridge
Base—Blue Petrel Bay	1h30	via Skua Ridge
Base—Ships Cove	0h45	via Skua Ridge
Base—Archways	1h00	coastal route via The Fault
Base—Prinsloomeer	2h00	via Third Sister and over Long Ridge
Base—T,D & H	0h45	inland path
Base—Third Sister	1h00	inland path
Base—Hydroshack	0h20	inland path
Base—Junior's Kop	0h30	Base—KT path
Base—Trypot	0h20	via Old Mammal Lab, trail coastal of Doris Hut



Gentoo Penguin	<i>Pygoscelis papua</i>
King Penguin	<i>Apteodytes patagonicus</i>
Macaroni Penguin	<i>Eudyptes chrysolophus</i>
Rockhopper Penguin	<i>Eudyptes chrysocome</i>
Wandering Albatross	<i>Diomedea exulans</i>
Greyheaded Albatross	<i>Thalassarche chrysostoma</i>
Sooty Albatross	<i>Phoebetria fusca</i>
Light-mantled Albatross	<i>Phoebetria palpebrata</i>
Southern Giant Petrel	<i>Macronectes giganteus</i>
Northern Giant Petrel	<i>Macronectes helli</i>
Subantarctic Brown Skua	<i>Stercorarius antarcticus</i>
Marion Kelp Gull	<i>Larus dominicanus marionse</i>
Lesser Sheathbill	<i>Cheonis albus</i>
Salvin's Prion	<i>Pachyptila salvini</i>
Fairy Prion	<i>Pachyptila turtur</i>
White-chin Petrel	<i>Procellaria aequinoctialis</i>
Soft-plumage Petrel	<i>Pterodroma mollis</i>
Grey Petrel	<i>Procellaria cinerea</i>
Great-wing Petrel	<i>Pterodroma macroptera</i>
Pintado (Cape) Petrel	<i>Daption capense</i>
Blue Petrel	<i>Halobaena caerulea</i>
Common Diving Petrel	<i>Pelecanoides urinatrix</i>
South Georgian Diving Petrel	<i>Pelecanoides georgicus</i>

Grey-backed Storm Petrel	<i>Garrodia nereis</i>
Antarctic Tern	<i>Sterna vittata</i>
Kergeulen Tern	<i>Sterna virgata</i>
Kergeulen Petrel	<i>Aphrodroma brevirostris</i>
Crozet Shag	<i>Leucocarbo melanogenis</i>
Southern Elephant Seal	<i>Mirounga leonina</i>
Subantarctic Fur Seal	<i>Arctocephalus tropicalis</i>
Antarctic Fur Seal	<i>Arctocephalus gazella</i>
Leopard Seal	<i>Hydurga leptonyx</i>
Killer Whale	<i>Orcinus orca</i>
Opportunistic Sightings	
Indian Yellownose Albatross	<i>Thalassarche carteri</i>
White-headed Petrel	<i>Pterodroma lessonii</i>
Black Bellied Storm Petrel	<i>Fregetta tropica</i>
Painted Lady Butterfly	<i>Vanessa cardui</i>
Humpback Whale	<i>Megaptera novaeangliae</i>
White-faced Macaroni Penguin	<i>Eudyptes schlegeli</i>
White morph SGP	
Rockeroni/Machop Penguin	
Tropizella Fur Seal	
<i>Homo sapien marionense</i>	

Due to the sensitive nature of fauna on Marion only search for species under the supervision of the Sealers and Birders. Permits apply for visiting breeding colonies

Alpha Kop	Middelrooikop	First Red Hill
Arthur's Hill	Ned's Kop	First Sister Hill
Azorellakop	Neville	Hendrick Fister
Bakkerkop	Nuwekop	Junior's Kop
Bald Peak	Oubaas	Le Grange Kop
Beret	Otto	Miskop
Beta Kop	Puisie	Second Sister Hill
Bob Rand Peak	Pyroxine Kop	Sekelkop
Bomkop	Repetto's Hill	Third Sister Hill
Brian	Resolution Peak	Umkhombe
Cairn Peak	Rondekop	
Delta Kop	Rooihand	Unofficial Koppies
Eduard	Roorif	Hobbs Hill
Esigangeni	Saagtand	Earl Grey
Fred's Hill	Saalrug	Phillip
Gamma Kop	Santa Rosa Hill	Littleman
Gordon's Hill	Skuinskop	Peter
Green Hill	Sneeuberg	Mark
Halfmaankop	Snok	Ed
Halfway Kop	Spitskop	Gremmen
Hoe Rooikop	Stevje	Smith
Hunchback	Swartrand	Bester
Johnny's Hill	Sidney	Delta Extension
Kaalkoppie	Tate's Hill	Other Features (not Koppies)
Kampkoppie	Theo	Tafelberg
Karookop	Tom-Dick-Harry	Kopanong Lake
Kleinkoppie	Truter Peak	Esikhalini (also known as boomerang lake)
Knopkop	Tumor	Sfinks
Laekop	Tweeling	Boulder
Little Cone	Verdwaalkop	Piew Crags
Lou-se-kop	West Peak	Randkrater
Mascarin Peak	Wilhelm	(van der Berg, 2022)
Mesrug	Wolfie	
Middelkop	Wynand	
Middelman	Bill Briggs Beacon	

Gordon's Hill: named after Gordon 'Big Gordon' Glass; M1 Engineer; Tristan Islander

Ned's Kop: named after Edward 'Ned' Green; M1 Tristan Islander

Johnny's Hill: named after John the Baptist 'Johnny' Lavarello; M1 Tristan Islander

Repetto's Hill: named after Arthur Repetto's ; M1 Cook; Tristan Islander

Arthur's Hill: Named after Arthur Rogers; M1 Tristan Islander

Freds Hill: named after Fred Swain; M1 Tristan Islander

La Grange Kop: named after Johannes Jacobus 'Hannes' La Grange; M7, M8 and M11 Meteorologist

Bob Rand Peak: named after Robert W. 'Bob' Rand; M8 Biologist

Tate's Hill: named after HA Tate; M10 Radio Operator

Hendrik Fister: named after Hendrik 'Hennie' Vister; M11 Cook

Brian: named after Brian J Huntley; M22 Botanist

Wynand: named after Wynand J.C. Visagie; M21 Radio Operator

Theo: named after Theo von Ludwig; M21 Leader/Meteorologist

Wolfie: named after Christo 'Wolfie' Wolfaardt; M21 Meteorologist

Sidney: named after Sidney G. Strong; M21 Meteorologist

Oubaas: named after M18 team dog; Goodest Boy

Bakkerkop: named after E.M van Zinderen Bakker sr., Founder of Marion and Prince Edward Island Biological Research Programme

Neville: named after N.R. Fuller, Marine Biologist

Otto: named after Otto Langnegger, surveyor

Wilhelm: named after Wilhelm J. Verwoerd, geologist, 1965/66 First Biological and Geological expedition

Eduard: named after Eduard M. van Zinderen Bakker jr., M22 and M32 ornithologist

Stevje: named after Steve J. Quinn, M21 meteorologist

Lou-se-Kop: named after L.ourens W. 'Loutjie' de Beer, M21 Medic

These koppies are in SGDP breeding areas and should be avoided in summer

Ferns

Blechnum penna-marina: most widespread fern, groundcover, new buds form red-yellow fiddleheads, grows on well drained hills, 10-250m altitude

Elaphoglossum randii: rare fern found growing amongst *Blechnum*, mostly restricted to north-facing slopes, broad leathery leaves sprouting from rhizome

Grammatis poeppigaena: fern growing in dense cushions or ground cover, , leaves have blunt tip

Hymenophyllum peltatum: fern growing in sheltered areas, often sinkholes, forms dense rhizomatous mats, leaves are toothed on the edges

Lycopodium saururus: larger of the two *Lycopodium* ferns, grows in rocky outcrops and lava flows.

Lycopodium magellanicum: smaller and less robust than *saururus*, forms erect stalks which contain sporangia, often found in mire or waterlogged regions

Polystichum marionense: branched, small growth form with characteristic finely divided leaves, new buds form fiddleheads, grows in sheltered overhangs

Flowering plants

Azorella selago: forms dense cushions, widespread across the island, found at high altitudes 10-600m

Callitriche antarctica: forms dense carpets, restricted to the coast, biotic habitats, grows in permanently waterlogged areas, often found lining Southern Elephant Seal moult wallows

Cerastium fontanum: herb restricted to low altitudes, dark green, hairy stem and leaves with small white flowers

Colobanthus kerguelensis: epiphyte found growing on *Azorella selago*, forms cushions but never grows independently

Cotulla plumosa: coastally restricted, forms dense carpets which flourish in summer forming large lobed leaves with visible hairs, flowers characteristic of Asterids but lacking ray florets

Crassula moschata: coastally restricted succulent, characteristic of sea spray

areas, leaves have red margin and grow in tight radial form

Sagina precumbens: introduced species, coastally restricted, grows in dense cushions that often obstruct neighbouring vegetation

Stellaria media: introduced herb, broadleaf herb with small white flowers and branched growth form, single row of hairs on stem lengthwise, good salad

Limosella australis: freshwater plant, grows submerged in shallow mires and ponds, tiny strand-like leaves deep green colour

Montia Fontana: biotically linked herb, widespread,

Potamogeton spp: freshwater plant, only know site albatross lake, grows submerged with thin oblong leaves up to 10cm long

Pringlea antiscorbutica: Kergeulen Cabbage, charismatic brassica, resembles common garden cabbage with robust leaves and main stem, flowers grow on a branched inflorescence

Ranunculus biternatus: Antarctic buttercup, introduced by solglimt shipwreckers, now widespread and abundant, grows in waterlogged areas, sometimes submerged, grouped lobed leaves give it a cup appearance

Grasses

Polypogon magellanicum (*Agrostis magellanica*): most typical grass on the island, stiff leaves with a purplish tinge, widespread in mire habitats, seedheads often nodding, flowers in summer months

Agropyron repens: introduced by Solglimt shipwreckers, site near Ships Cove, 30-120cm tall, forms tufts, stalkless seeds alternating along axis

Agrostis stolonifera: introduced grass found in drainage lines, ponds and disturbed areas, 8-40cm tall, wide, open flower, closely divided branches on inflorescence, fluffy appearance, flowers in summer months, possibly naturalised (Gremmen, 1975)

Agrostis gigantea: introduced grass bluish green grass found around old base, similar in appearance to *A.stolonifera* however more robust and is spread by tough rhizomes rather than leafy stolons, 40-120cm tall, dull green

leaves, much branched inflorescence,

Alopecurus geniculatus: introduced grass: locally common to Mixed Pickle Cove, likely introduced by sealers, 15-45cm, robust sheathed flowering stem with dense panicles on seedhead

Caryx dikei: sedge not a grass,, grows in dense bunches, blades firm, flowering stem robust with dense inflorescence

Festuca rubra: introduced by Solglimt shipwreckers, site near Ships Cove, unlike *Poa*, mature leaves are rolled lengthwise rather than folded lengthwise, tall sheathed flowering stem, branched seed head with small seeds

Juncus effusus: introduced rush (not a grass), 40-90 cm high tufts, large reed-like plant with ridged circular stems

Juncus scheuchzerioides: rush not a grass: typical mire species, leaves resemble grass, easily identifiable by running fingernail along the leaf to feel the ridges

Luzula multiflora: introduced woodrush restricted site behind sealers cave, biotic habitats, resembles grass, broad blades with long white hairs characteristic, large purple flowers loosely grouped on inflorescence

Poa annua: short lived annual, 3-30 cm high, slender stem, possibly branched at base, paired branches on seedhead, characteristic of biotic habitats, often forms bright green lawns

Poa cookii: robust grass grows in dense tussocks, dominant in biotic habitats, easily identifiable

Poa pratensis: introduced grass, 20-50 cm tall, loose inflorescence, upright during flowering then nodding in seed.

Mosses and Liverworts

Andreaea acuminata: moss restricted to mid and high altitudes, grows in dense cushions on scoria and grey lava

Blepharidophyllum densifolium: liverwort found in wet mire areas, stems and leaves visible

Breutelia integrifolia: found in drainage line mires

Campylopus arboricola: moss with short brushlike extensions forming dense cushions with a dark green appearance, grows in dense cushions

Campylopus clavatus: much longer brushlike extensions forming dense cushions with a green/gold appearance, grows in dense cushions

Jensenia pisicolor: liverwort grows in large numbers in permanently waterlogged soil particularly wet mire but also in feldmark habitats,

Marchantia berteroana: liverwort found in waterlogged areas or seep slopes, leathery leaflets

Rhynchostegium brachypterum: golden hair moss perfect for bum wiping

Racomerium lanuginosum: grey tarantula moss

Lichens

Cladonia: several species grow in dry mires and feldmark, grey foliose lichen with trumpeting sporangia

Turgidosculum complicatulum: black foliose lichen found on the coast just above the tide mark (not seaweed)

Orceolina: several species found particularly on grey lava in the feldmark, bright orange in characteristic radial patterns

Usnea: fruticose lichen growing on scoria at high altitudes, olive green strands sometimes seen with sporangia

Seaweed

Durvillea sp: characteristic kelp to Marion, holdfasts attach at water level, unbranching fronds originate from a short stipe

Macrocystis laevis: bladder kelp endemic to the Prince Edward Islands, grows en masse offshore particularly on the East coast of Marion

(Gremmen and Smith)

- Smith and Gremmen, *The Flora of Marion and Prince Edward Islands*
- C van der Berg, 2022, *Map of Marion Island*
- MCM Birder's Fieldwork information for Marion Island, 2009
- De Bruyn, Oosthuizen, Pain Forms the Character Doc Bester, *Cat Hunters and Sealers, First Edition 2017, ISBN 978-0-620-74912-1*
- Terauds, Cooper, Chown, Ryan, *Marion & Prince Edward Africa's Southern Islands, First Edition 2010, ISBN 978-1-920338-42-8*
- Hanel, 1999, *The Distribution and abundance of macro-invertebrates in the major vegetation communities of Marion Island and the Impact of alien species*
- Team Photo's, *Antarctic Legacy*