

General Information about the work at the Succulent Karoo Research Station in Goegap Nature Reserve

The SKRS (Succulent Karoo Research Station) is a registered non-profit organization with the aim to conduct fundamental biological research in the Succulent Karoo in the field of organismic biology, especially ecology, evolution, animal behavior and eco-physiology.

Table of Contents

Postal address	2
Springbok	2
Goegap Nature Reserve	2
Research done at SKRS	3
Management and the different people at SKRS and their functions	4
Costs for volunteer field assistants.....	4
Holidays	5
Telephone, Internet and Email	6
Climate.....	6
Flora and Fauna	6
Other activities in the reserve	6
Crime.....	6
Visa.....	7
How to get to Goegap?.....	8
Accommodation at the research station	9
Car	9
Health.....	10
Indemnity Form	10
Money	10
Equipment to bring	11
Work schedule	11
Research Station Duties.....	11
Facebook Group.....	12
Reading list.....	12
Please remember the following.....	12

Postal address

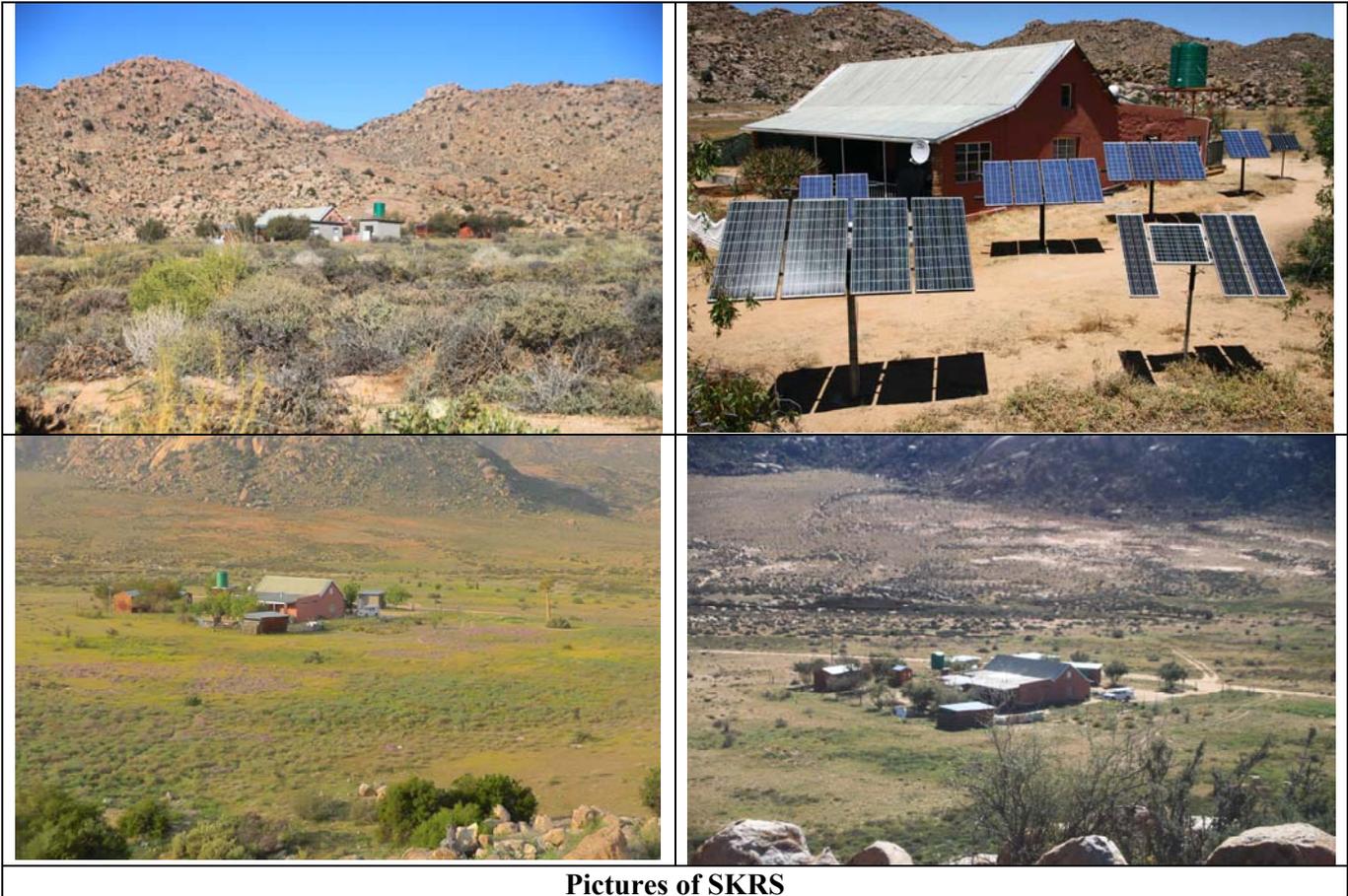
To receive mail, use following address

Succulent Karoo Research Station, PO Box 541, Springbok, 8240, South Africa.

Email is checked ones a week: succulent.karoo.research.station@kabelbw.de.

Ask for the email address of the current research manager!

There is no telephone.



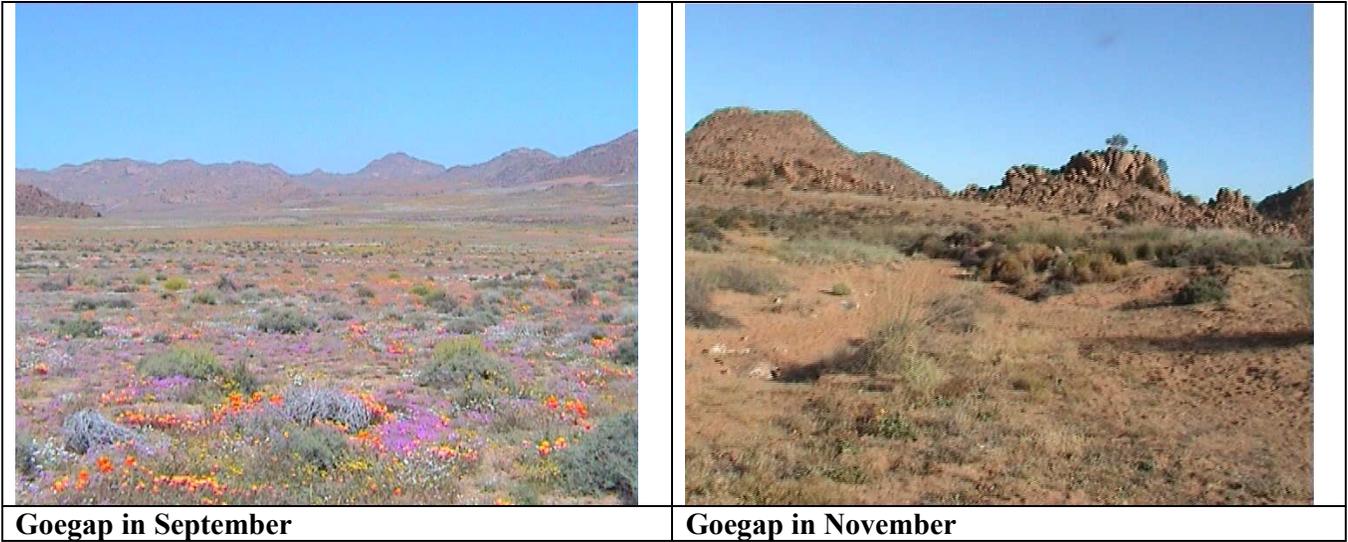
Pictures of SKRS

Springbok

Springbok is a small town with about 15 000 inhabitants, 20km away from the Research Station. As Springbok is the capital of Namaqualand, it has several well stocked supermarkets, good pharmacies and many other shops with everything you might need. Once a week we make a shopping trip to Springbok

Goegap Nature Reserve

is close to Springbok, the capital of Namaqualand. Goegap is a semi desert. Main attractions are the wildflowers in spring (July-October; depending on rainfall in winter). During the tourist season in spring, daily up to 500 tourists might visit the reserve. Few tourists visit during other times.



Research done at SKRS

Research at SKRS focusses on the socio-ecology of rodents. We trap, mark and observe diurnal rodents and conduct experiments. The first twenty years, the focus was on paternal care, social flexibility, and benefits and costs of group-living in striped mice. After 2020, the focus switched to costs and benefits of solitary living in the bush Karoo rat. Currently, the bush Karoo rat population is extensively monitored and experiments for two PhD projects are conducted. The striped mice as well as round-eared elephant shrews on the field site are also trapped and marked, but no detailed studies are conducted on them.

Management and the different people at SKRS and their functions

The directors of the research station are Dr. Carsten Schradin (CNRS, Strasbourg, France) and Dr. Neville Pillay (Wits = University of the Witwatersrand, Johannesburg, South Africa), who are also the PIs. Carsten is normally in Goegap in January / February and September / October. The station is managed by a research manager, which is currently (2021-2023/2024) the PhD student Lindelani Makuya. In her absence, another PhD student or an appointed research assistant are responsible. All people present at SKRS are asked to contribute to its management.

Name	Function	Who it is (2022-2024)
PI (principal investigator)	These are the directors of SKRS who decide which projects take place at SKRS and which people can work there.	Dr. Carsten Schradin, CNRS Dr. Neville Pillay, Wits
Manager	Managers are hired for a minimum of 1 year and coordinate research (different projects) and maintenance of the station. Are permanently based at SKRS. SKRS pays them a monthly compensation and covers their rental fee.	Lindelani Makuya, Wits, Research Manager. Siyabong Sangweni, Wits, Station Manager (Infrastructure)
Researchers	These are researchers with permanent position that conduct research at SKRS. Typically stay for weeks to months.	Currently none
Postdocs	These are researchers without permanent position that conduct research at SKRS. Typically stay for months to years at SKRS.	Currently none
PhD students	Students collecting data for their PhD thesis. Typically stay more than 7 months a year at SKRS, for 2-4 years. Normally have a grant from their hosting institution.	Lindelani Makuya, Wits Jingyu Qiu, CNRS
Master students	Students collecting data for their master thesis. Typically stay for 6 months at SKRS in one year. They come from different universities with different funding.	Currently none
Research assistants	Research assistants are hired for 4-12 months and help the managers and PhD students with data collection and maintenance of the research station. They can have their own small scientific project, if they want. SKRS pays them a monthly compensation and covers their rental fee. We mainly hire South African students as research assistants, as most of our funding comes from South Africa and should not be used to pay students from rich countries.	Currently we hire 1-2 research assistants per year.
Volunteer field assistants	These are students that come to SKRS to learn field techniques, improve their CVs, and gain experience. They cover all arising costs (travel, accommodation, groceries) themselves or by grants they obtained. They are typically from Europe or the USA and stay for 2 to 9 months.	Before Corona, we always had 1-2 volunteers at SKRS

Costs for volunteer field assistants

Unfortunately no funding is available for volunteer field assistants, who have to cover all costs themselves. Students have to arrange their own transport to the field site (for details how to do this see below). A monthly fee of approx. 100 Euro must be paid to the research station for accommodation and the weekly trip to town (see table below). Students should search for grants in their home country to cover costs of their internship as volunteer. SKRS provides invitation letters for this,

All students (including hired research managers and assistants) must buy their own food. For food about R 3500 (200 Euro) should be calculated per month. You might have extra costs, such as going to the restaurant / take away on town days, beer or wine, shopping for clothes etc., postage and telephone calls home. These can easily be another 100 Euro / month. **Including accommodation and groceries costs of approximately 400 Euro / month should be expected.**

Fees at the Succulent Karoo Research Station

SKRS does not have an annual budget by any organization but must find money to cover its running and maintenance costs. For non-scientific costs (i.a. maintenance of the station), this is done via a rental fee for everybody staying at SKRS, which is used to pay for the costs of maintaining the research station including

the solar system, consumables at the research station, gas for cooking, and for the use of car. The rental fee has to be paid in cash to the research manager the 1st of each month. The rental fee is typically paid by private funds or research funds of the principal investigators; SKRS only pays rent for the hired research assistants and managers, via funds from Wits. **The rental fees for researchers not associated to the striped mouse / bush Karoo rat project is R300/day or R7000/month.**

Rent to be paid to SKRS: Please note that rent has to be paid for the entire period you are at SKRS, which includes any holidays you might take during that period.	Master students, PhD students, postdocs and researchers (Students who do not have funds available to cover their daily costs of living can ask the directors of SKRS to get a reduced rental fee, which always must be more than what field assistants pay. The application must be done in writing and co-signed by the supervisor. Send it to both Dr. Pillay and Dr. Schradin).	Volunteer field assistants	Paid research assistants and managers Hired research assistants and managers do not have to pay themselves rent. Instead, research fee paid by people working at SKRS will be used to cover their rent (stated in brackets).
Per month			
2023	R 4000	R 2000	R 0 (R2000)
2024	R 4250	R 2100	R 0 (R2100)
2025	R 4400	R 2250	R0 (R2250)
Per day	R200	R100	R0

Rental fees for guests of students / researchers:

Guests can stay the first three days for free in the dormitories if there is space. Afterwards they have to pay R 200/day.

Guests that stay for periods of 1 month or longer pay the same fee as researchers.

Research fee per person. The research fee is used to maintain the research infrastructure (traps, centrifuges, laboratories), to pay for consumables (bait, hair dye, alcohol, test tubes etc), and to pay for the research managers and research assistants. It also pays to get access to long-term data. The research fee is a minimum. If researchers apply for a project to take part at SKRS, we ask them to apply for a research fee of €1000/month in their grant application.

Research fee per month to be paid to SKRS:	Students and postdocs directly supervised by the directors of SKRS.	Students, postdocs and researchers in collaboration with the striped mouse project but supervised by somebody else.*
Per month		
2023	R 0	R 9000
2024	R 0	R 10000
2025	R 0	R 11000

* A reduced research fee can be negotiated with the directors of SKRS if the project induces only low costs and does not need the support by the managers.

Holidays

If you want to go on holidays, please plan them before or after your stay in Goegap. If you stay for more than 3 months, you are also allowed to take a holiday in between, but you have to inform us about this before your arrival. **Please note that you (and everybody else) have to pay the rental fee at the research station also during your absence.**

Telephone, Internet and Email

There is no internet, no telephone line and no reception for cellular phones at the research station. You can get cell phone reception 5kms away from the research station and we drive there twice a week. For emergencies only, people can leave a message at the office of Goegap: 0027 – (0)27 – 7189906. Please do not use this number in any other case than an emergency. In 2023 / 2024, we expect to get internet access via Starlink.

Climate

Cold in winter/spring (Mai-September), with temperatures often below 0 at night, between 10 and 22 during the day. As houses in South Africa, including the research station, are not very well insulated, it gets very cold inside. In summer (November-March) temperatures can be up to 40 degrees. Cold periods can also occur in summer. Rain falls mainly in winter and spring, with some thundershowers in summer. The table below gives only an estimate and it can differ from year to year (brackets).

Month	Minimum temperature	Maximum temperature	Days with rain	Rain in mm
January	14 (7-13)	35 (20-45)	0 (0-5)	0 (0-100)
February	14 (9-18)	35 (20-42)	2 (0-9)	5 (0-100)
March	12 (7-11)	30 (18-40)	3 (0-5)	10 (9-50)
April	8 (4-9)	25 (18-39)	4 (3-6)	10 (9-50)
May	1 (1-3)	22 (12-33)	4 (3-8)	20 (6-50)
June	0 (-2 -5)	18 (8-28)	5 (7-9)	35 (30-100)
July	0 (-1-6)	18 (9-29)	3 (0-5)	20 (0-100)
August	1 (-1-5)	20 (9-26)	4 (3-9)	20 (1-100)
September	4 (0-7)	24 (10-36)	4 (2-8)	10 (1-100)
October	6 (0-10)	25 (18-40)	2 (2-4)	5 (2-50)
November	12 (7-12)	28 (18-44)	1 (1-7)	5 (1-50)
December	12 (7-14)	32 (20-44)	1 (0-6)	5 (0-50)

Flora and Fauna

The Succulent Karoo is one of 25 biodiversity hotspots due to its large number of endemic plant species. It is especially famous for numerous species of succulents. In spring, large fields of wildflowers can occur after good winter rain. However, this is not predictable and can be any time between July and September, and in some years there are very few wildflowers. Less spectacular but still beautiful are the autumn flowers in March / April.

Scorpions: big harmless ones and small very poisonous ones (wear shoes when you go to the toilet at night!). Sunspiders, stick insects and mantis in summer. Many reptile species including poisonous snakes (black spitting cobra, cape cobra, puffadder), which also visit the house (especially October – January). However, they pose no threats and we cannot guarantee that you will see one. The smallest tortoise of the world, *Homopus signatus*. Many bird species including Cape and spotted eagle owl and several species of raptors (black eagle, jackal buzzard, pale chanting goshawk and booted eagle). Mammals include springbok, gemsbok, mountain zebra, baboons, aardvark, aardwolf, jackal, African wildcat, mongooses and maybe even honey badgers (spotted a few times). Diurnal small mammals include the striped mouse, bush Karoo rat, whistling rats, dassie rat and three species of elephant shrews.

Other activities in the reserve

Hiking. Night drives (possible ones a month) to see the aardwolf and aardvark. Namaqualand is a heaven for star gazing.

Crime

Namaqualand is as safe as Europe. But you have to be careful in Cape Town and any other South African city. Don't walk in unknown areas, especially after dusk. Ask for advice at your backpacker / hotel.

Visa

1. Check whether you need to apply for a visa for South Africa. Citizens of most western countries (Europe and USA) don't need a visa if they stay for up to three months. When entering South Africa, simply tick "holiday" as the reason for entering the country, and you will get a stamp into your passport allowing you to stay for 3 months. It is best to enter South Africa as a tourist. Do not state on the immigration form that you come to study or to work. You do not work here nor visit a university. If you do state that you enter for research or work, entrance will be declined and you will have to fly back. It is not possible to extend this visa while you are in South Africa. For an extension you have to go back to your home country!
2. The visa laws change regularly, and it is difficult to get a visa for more than 3 months. There also seems to be extreme differences between embassy's how well it works (or doesn't work at all). As the research station is a registered non-profit organization (NPO), you can try to apply for a visa for voluntary work. But you might get the stupid answer that voluntary work can only be done working with humans, not with animals. The only other option is to apply for a research visa (which is technically a visitor visa for three years). To get a research visa, you need a letter from your home university, that you are registered there and that you go for research to South Africa. If you can get such a letter, and all other documents, then you will get the visa (for up to three years) within 1-3 months. So when applying for a visa, you will have to hand in (but please also check the homepage of the South African embassy in your home country for details):
 - Letter from your university that you go to South Africa to conduct research.
 - Invitation letter from SKRS.
 - A filled in form that you will find on the homepage of the South African embassy
 - Your passport (valid for at least 30 days after you left RSA)
 - Certificate of good conduct / police clearance (polizeiliches Führungszeugnis)
 - Medical certificate
 - X-rays of your chest (South Africa is an emigration country, and the problem exists that people with tuberculosis from other African countries cross the border)
 - You have to show that you have enough money (bank account statement)
 - Medical aid that is valid for RSA
 - Return ticket
 - Fee of approx. 80 Euro
 - Unfortunately, you have to go to the South African embassy in person!

It is possible to extend your visa while you are in South Africa. For an extension you have to go to Cape Town and provide all needed documents.

How to get to Goegap?

Fly to Cape Town and stay there for one night or longer, if you would like to see a bit of the city. In general, the backpackers in Long Street, in Gardens, and “Zebra Crossing” are all suitable places in town (between 15 and 50 Euros per night, communal or single room). The Fountains Hotel on St George is very central and close to the bus station but expensive (approx. 100 Euros per night). There are many other good options (Rhino Hotel is central and cheap):

Bus from Cape Town to Springbok: The intercape bus is the safest and most comfortable way to get to Springbok. You can book your ticket (approx. 30 Euros one way) online at <http://www.intercape.co.za>. The bus leaves Cape Town at 18:15 and arrives at 2:20 in Springbok. **So you will arrive there in the middle of the night!** This means you have to stay one night in Springbok and book a hotel. Somebody from the hotel will pick you up at the bus stop. One good option seems to be the Springbok Hotel springbokhotel@jcbotha.co.za or the Masonic Hotel masonichotel@jcbotha.co.za (both hotels to be found here: http://www.jcbotha.co.za/masonic_hotel.html), which offer pick up from the bus station (approx. R600 for single room including pick up). The Boesmanland Guesthouse (info@boesmanlandguesthouse.co.za) also offers pickup from the bus-station and rooms for R600. Other guesthouse in Springbok can be found on the internet.



Taxi (=minibus) from Cape Town to Goegap: You can book a minibus in Cape Town or already before you get to Cape Town. These minibuses are called taxis in South Africa and can be booked by phone only. Taxis go every weekday from Cape Town to Springbok. **Important: Taxis often don't run on Saturdays and only few on Sundays.** They pick you up at the hotel/ backpacker and will drop you off in Springbok, sometimes even at the research station. Pickup is between 2.00 and 5.00 o'clock AM (morning!). When you take the taxi, you will arrive in Springbok during the middle of the day between 1 and 3 PM such that when you do have problems getting to Goegap you can somehow make arrangements to get there (taxi from springbok) or look for accommodation. (In 10 years only 1 of > 60 students had this problem!). **Make sure that both the Cape Town office operator on the phone and the driver knows that they will have to bring you to Goegap (not only to Springbok) before booking and boarding the taxi.** The taxis cost around R600. Their telephone numbers are (027 is the area code for Springbok, 021 for Cape Town): Titus: 021-9092533; 027-7121381 (transfer from Springbok to Goegap costs extra). Bezuidenhout: 021-9324950; 027-7121884 (transfer from Springbok to Goegap costs extra). (Carstens: 027-7121847; this company will bring you only to Springbok, but not to Goegap). Minibuses also run in the city of Cape Town. Here these taxis are not very reliable and can be even dangerous! However, these are different operators than the minibuses going to Springbok. So if the people at

your hotel warn you not to take the minibus to Springbok, they talk about different companies. Nevertheless, the minibuses might drive quite fast, and when they are full, they are not very comfortable.

If you get stranded in Springbok, you can ask at the taxi stands for transport to Goegap by car. This will cost you around R300. Make sure they drop you at the research station, not only the office. Ask for Bezuidenhout transport (Tel: 027-7121884)

Accommodation at the research station

The research station is directly at the field site. The research station is an old farmhouse with two dormitories, one student's office and one big kitchen. In winter it can get very cold, especially during nights, as the insulation is bad. Additionally, we have three small wooden houses: 2 houses of 3x6m, one for student accommodation (sleeps two) and one as field laboratory, and one extra bathroom. The managers' flat gives accommodation for the two current managers / PhD students. There are also two single buildings (each 6x6m) used as laboratories. The research station lies lovely and lonely in the nature reserve.

Sleeping-rooms: There are two sleeping rooms for students, one sleeping two, the other one three. Additionally, we have one Wendy Houses (wooden houses), sleeping two. Each student has its own bed, pillow and cupboard. **You have to bring your own sleeping bag/blankets.**

Kitchen: There is one communal kitchen and two fridges run by solar power. Space in the fridge is limited and four people have to share one fridge! A big braai (BBQ) area exists.

Power for light and computers is provided by a solar system and a wind turbine. Each room has one power plug. However, power is restricted and **you are not allowed to use any devices that use a lot of power like a hair dryer.** You can charge your camcorder, camera, toothbrush or cell phone during the day, but not during the night. We have to save energy, especially during cloudy days.



Solar system at the research station.

Water is provided by a water pump and water tanks. Thus, we have to use water sparingly, and showers should not take longer than 5 minutes. Hot water is available. There is one big communal bathroom with two showers and two toilets and one small bathroom. To get to the bathroom you have to go outside and walk around the house. The water from the kitchen tank is drinkable.

Laundry We have a washing machine, but use is restricted to periods of excess solar power. Especially in winter you might not be able to use the washing machine for weeks and then the laundry has to be done by hand. There is a clothesline for drying.

Car

A Mahindra bakkie (=2x4) is used for the weekly shopping trip. **There is no car for private use!** As most accidents with volunteers in South Africa happened when they were driving a car (at other projects volunteers died during car accidents), we do not allow volunteers to use our cars.

Health

All people staying at SKRS must be fully vaccinated against Corona. This includes any visitors.

You should have vaccinations against **polio and tetanus**. If you come in winter/ spring, you should also get a vaccination against the **flu**. Organize this in advance, as in Europe it is often difficult to obtain flu vaccination in summer, which is winter in South Africa.

Goegap is in a desert, one of the healthiest environments of the world. We are far away from the tropics, so there are no tropical diseases. There is no malaria, bilharzias, yellow fever, or risk of hepatitis. There is some risk of meningitis transferred by ticks.

To our knowledge the mice and bush Karoo rats do not transfer rabies. But if you are a very anxious person, you might consider vaccination against rabies. I myself do not have vaccination against rabies, and most students do not have it. Since I started the project in Goegap in 2001, there was no reported case of rabies in dogs or jackals in the area. If there would be reports of rabies in Namaqualand, we would change this information and recommend everybody to get vaccinated against rabies.

The health system in South Africa is well developed. Contact your health insurance to make sure you have medical cover for going overseas. There is a basic hospital in Springbok and several doctors' practices. Modern hospitals are only available in Cape Town and Upington.

For your own safety and well being:

- It is a pre-requisite that you have a valid vaccination against Corona. Email a copy of this **before your arrival** to succulent.karoo.research.station@kabelbw.de.
- It is a pre-requisite that you have a valid health/travel insurance. Email a copy of this **before your arrival** to succulent.karoo.research.station@kabelbw.de. Upon arrival, hand a copy to the research station manager.

Apart from a broken wrist, we had no serious accident in Goegap since the project started in 2001, and I hope it will stay like this. But accidents happened at other projects. **Most dangerous are cars and roads**. This is why we do not allow students to use our cars.

Indemnity Form

All field assistants have to complete an indemnity form at arrival in Goegap. This means you will be personally responsible for your stay in Goegap and any accidents, injury or death that might occur in Goegap.

Money

Springbok has several banks and ATM cards from all major banks in Europe and the USA can be used to withdraw money. We do not recommend traveler checks, as to exchange them takes very long and costs significant bank fees. Most shops and restaurants accept credit cards, e.g. the supermarkets where we do our weekly shopping.

Equipment to bring

- Books to read. There is no TV here! (But we have full bookshelves).
- Movies on file to watch on the computer.
- A good torch and a spare torch. Spare bulbs for both of them
- A head torch can be very useful, especially when determining sleeping sites after sundown.
- A watch. You **MUST** bring a watch, a cell phone is not sufficient for field work!
- A pair of binoculars, if you have one (not mandatory).
- Sun cream.
- Hat for protection against the sun.
- Warm sleeping bag or blanket (especially May to October can be very cold!)
- Warm clothing if you come in winter/ spring, i.e. several sweaters, a pair of gloves, a warm hat, and house shoes.
- If you come in summer, bring at least one sweater for cold evenings.
- Warm jacket in winter/ spring.
- Long trousers for field work (snakes, thorn bushes!). Students are not allowed to conduct field work in shorts!
- Good shoes for work in the field.
- Otherwise bring light cloths. Long trousers will protect you against snakes, long shirts against the sun.
- You can bring your own laptop, which would make you independent of the two computers we have at the research station.

Work schedule

Working times have to be flexible and adapted to the situation in the field and the different scientific projects. We work from sunrise (between 5.30 and 7.30, depending on season) until 1-2 hours after sundown (19.00-22.00). We work at least 5 days a week in the field, which are typically Monday, Tuesday, Thursday, Friday and Saturday. One day (normally Wednesday) is used to clean the research station before going shopping in Springbok (not counted as working day). One day a week (typically Sunday) is free. **If it rains during the week such that work is impossible, we might instead work on Sunday. Also, sometimes it is necessary to work 7 days a week.** Normally we have one braai a week, either on Saturday night (summer) or Sunday afternoon (winter).

Research Station Duties

There is no caretaker and it is not the job of the station managers to do the dirty work for everyone. Thus, apart from the scientific work there are duties for everybody staying at SKRS to help with the maintenance of the research station. Everyone will be instructed on arrival by the station manager. Most tasks are not pleasant, but it is important that they are done in a reliable and accurate way. You will learn how a research station is run that is in the middle of nowhere and has to create its own electricity and own water supply. If you are interested in the function / importance of any of the tasks that is not yours, ask the field assistant in charge (e.g. if you want to know how the solar system works, how the water system works, etc.). Research station duties include:

- Moving the solar panels
- Reminder to defreeze in the fridge the night before the braai (to save energy during the night).
- Weekly check and fill up water tank
- Weekly cleaning research station
- Weekly cleaning of traps
- Weekly cleaning car

- Check and replace gas bottles

Facebook Group

Please contribute to our Facebook group <http://www.facebook.com/groups/stripedmouse> by posting any photos or stories weekly.

Reading list

Please carefully read all information on our webpage <https://www.skrs.online/>.

We recommend you read the PDFs linked on the top of the three main research pages (main results):

<https://www.skrs.online/publications.html>

<https://www.skrs.online/striped-mouse.html>

<https://www.skrs.online/bush-karoo-rat.html>

Last but not least, you can watch 45min video about the striped mouse in Goegap on youtube:

In the Land of Mice at http://www.youtube.com/watch?v=XP_043qy9Qk (English).

A shorter but better quality documentary is available here:

<http://www.youtube.com/watch?v=w6rvF5XrVn0&list=UUd12oFYqs5OobiiKMhDnFtw&index=1>

Please remember the following

- Everybody staying at the research station contributes to its running costs by paying a monthly fee (personally or via grants or covered by SKRS).
- Everybody staying at the research station contributes to the duties to maintain it. There is no house keeper doing this for you.
- Send an email at least one week before your arrival to the research station to succulent.karoo.research.station@kabelbw.de, stating what day and by what means of transport you will arrive. This is important to pick you up and to arrange shopping for you!
- We go shopping only ones a week, so you have to plan ahead!
- There is NO car for private use.
- There is no telephone, internet or cell phone reception. You will learn that living without these things is possible, even more relaxed.
- Save water and electricity at the research station.
- First read all the information you got from us, before asking questions.

**Become a member of our Facebook group “Striped Mouse Project Goegap”
to stay informed!**

http://www.facebook.com/#!/home.php?sk=group_163918286965410&ap=1

For further questions contact me via email:

succulent.karoo.research.station@kabelbw.de