Thatching Grass information sheet
For the protection of Yellowish Sedge-skipper habitat on southern Yorke Peninsula

What is Thatching Grass and why is it good?

Thatching Grass is the common name for *Gahnia filum* and it’s a relatively common native sedge (Fig. 1) around the southern Yorke Peninsula. It is a coastal sedge that commonly grows in mildly saline swamps. It has many benefits for those who have them on their property:

- It is very low maintenance and long lived.
- It tolerates flooding and drying in fresh to brackish conditions.
- If retained and expanded, a sedgeland can help prevent soil salinisation.
- It hosts native pollinators as well as predators and parasites that kill pests (e.g. Thrips).
- It provides a habitat for native animals; increasing biodiversity.
- It is part of a major species reintroduction and habitat restoration project on the northern Adelaide coastal plains.

Species reintroduction project

The *Hesperilla flavescens* (Yellowish Sedge-skipper - Fig. 2), used to flourish in the northern Adelaide coastal plains. It has not been seen in the area since 1985 and is believed to be regionally extinct.

It lives in Thatching Grass sedgelands where it spends 12 months as a larva (caterpillar - Fig. 2) feeding on its leaves. Not only does it eat the leaves, it builds leaf shelters to protect itself during the day (Fig. 2). Thatching Grass used to be common in the northern Adelaide coastal plains and we are working to increase and improve this habitat. There are currently many healthy populations of YSS in sedgelands across southern Yorke Peninsula.

The Nature Conservation Society of South Australia is working with land holders, community groups, Natural Resources Adelaide & Mount Lofty Ranges, and BirdLife Australia to examine the feasibility of reintroducing this species. We are all working together to keep known butterfly populations and habitats safe, grow and restore its habitats in the northern Adelaide coastal plains, and reintroduce the Yellowish Sedge-skipper (YSS) to its historic range.

It is proposed to collect larvae from large, sustainable YSS populations on southern Yorke Peninsula. These larvae will create founding populations in the target habitats on the northern Adelaide coastal plains.

Figure 1: a healthy Thatching Grass tussock. Photo: C. Butcher.

Figure 2: Top: a late instar larva of Yellowish Sedge-skipper (YSS). Photo: C. Butcher. Middle: a shelter made by a YSS larva between the leaves of Thatching Grass. Photo: C. Butcher. Bottom: a mature female YSS butterfly. Photo: A. Stolarski.
Areas of interest

Thatching Grass sedgelands of interest on southern Yorke Peninsula are known to have populations of the Yellowish Sedge-skipper (Fig. 3).

The large and smaller populations on southern Yorke Peninsula will act as sustainable donor populations for the target habitats on the northern Adelaide coastal plains.

It is important to keep the sedgelands in good condition so that the populations can continue flourishing and support butterfly reintroduction.

Different types of sedgeland

Thatching Grass is a versatile and resilient plant that can tolerate a wide range of salinity and a dynamic water cycle. It is often found in low-lying swamps or wetlands in cracking soil (Fig. 4). They can grow alone but they are often found with *Melaleuca* sp. +/- *Eucalyptus* sp. and low ground cover.

In wetter settings that may be annually flooded the sedgeland can form a vast flat ‘carpet’ of almost nothing but Thatching Grass. In settings that are flooded less frequently, the tussocks are more spaced and produce a less uniform coverage (Fig. 4).

Although the wetter sites may have bigger populations, both sites can sustain productive populations. The butterfly needs the sedgeland to have certain characteristics to make it suitable. The sedgeland must:

- have fresh green growth to feed the larvae. The fresh leaves are more palatable and flexible enough to build shelters (Fig. 5).
- not be over-crowded (Fig. 6). The YSS need access at the side of the tussock to lay eggs, as seen in the photos to the right.
- not be shaded by many trees. An open and flat area is ideal.
- not be heavily grazed. This removes the fresh leaves that the YSS prefer and sometimes the larvae are inadvertently eaten within them.
Creating a butterfly habitat

One of the best ways to create a habitat for this butterfly is to have a healthy patch of Thatching Grass tussocks on low, flat land with a few flowering trees. The Yellowish Sedge-skipper relies on Thatching Grass to lay its eggs; its larvae survive on its leaves until it becomes a butterfly. Thatching Grass grow in a variety of soil types and thrive where fresh to brackish water stands over winter that may dry out in summer (Coleman and Coleman, 2000). They can be planted 0.5 to 1 m spacing in full sun but close to native flowering trees (Fig. 6 & 7). The butterfly prefers open and flat sedgeland for mating displays and females need clear access to the side of the tussock to lay their eggs (Fig. 7). Habitats for this butterfly can be quite small. Populations are known to breed on clumps of only 150 plants (30 juvenile).

Threats to Thatching Grass and Yellowish Sedge-skipper

Thatching Grass and YSS populations can be protected by limiting threats. Some of these threats are:

- **Direct clearance:** Intentionally clearing Thatching Grass limits the overall YSS habitat size on southern Yorke Peninsula. Clearing can also increase the risk of the area being affected by soil salinity where it is cleared. The benefits of having a stand of Thatching Grass can greatly outweigh the benefits of clearing it.

- **Over-grazing:** Thatching Grass is not generally a preferred plant for grazing but both domestic (especially cows) and native grazers can damage the plant. Grazers also compete with the YSS larvae for the fresh leaves and sometimes the larvae can be eaten along with the leaves.

- **Over-crowding:** If the females cannot access the side of the plants then it is likely that fewer eggs will be laid. Furthermore, over-crowding the tussocks increases competition for sunlight, soil nutrients and water.

- **Spray drift:** Fertilisers, herbicides and pesticides can harm both the plant and the YSS in different life stages (i.e. egg, larval or mature). Furthermore, they can kill beneficial predators and parasites that control introduced pests (e.g. Western Flower Thrip).

- **Change in water cycle:** The plants thrive in the wetting/drying cycle of a swamp/wetland. It may no longer be viable as a YSS habitat if the water cycle is changed by draining the land and altering drainage flows.
More information

Councils, state government, NGOs and more: Local and state government agencies are working together with non-government organisations and volunteer groups to help improve the Thatching Grass habitat for the Yellowish Sedge-skipper. Visit their websites or offices to discuss what you want to know or how you can help.

⇒ Natural Resources Northern and Yorke, and Natural Resources Adelaide Mt Lofty Ranges
⇒ Nature Conservation Society of South Australia (NCSSA)
⇒ City of Salisbury, City of Playford and Adelaide Plains Council

Management plans and projects: One of the founding documents for this effort is the Local Recovery Plan for the Yellowish Sedge-skipper and Thatching Grass. The Local Recovery Plan helped lead to the inclusion of our butterfly and its habitat as conservation priorities in the Metropolitan Adelaide and Northern Coastal Action Plan. The plan was reviewed in 2015 to see how close we were to reaching our goals. The NCSSA has completed a feasibility assessment for the reintroduction of the species.


Specialist pest management research: There a some very promising work done towards using native plants (and animals) as part of an integrated pest management strategy. This is specifically targeted at common horticultural pests.


Other research from the literature: A large part of what we know about our butterfly’s habitats on the southern Yorke Peninsula is because of the work done by Alex Stolarski, Roger Grund and Butterfly Conservation South Australia. There has been a great deal of research on butterfly conservation in Australia, including the close relative Hesperilla flavescens flavescens in Victoria, by specialist researchers.


