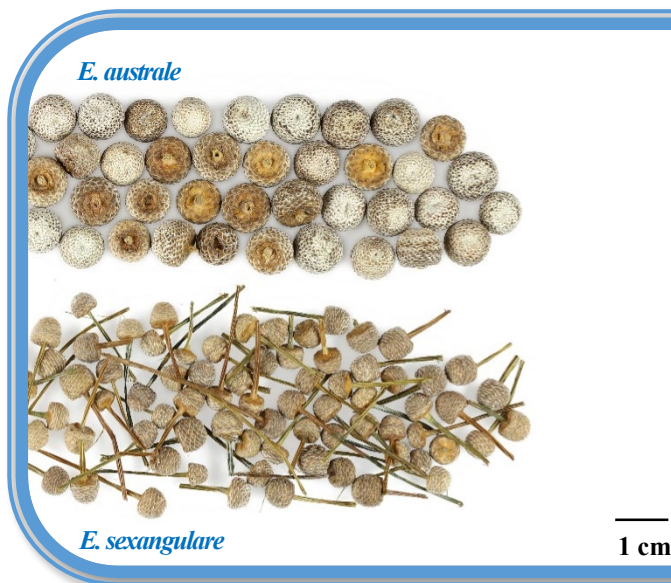


# Flos Eriocauli versus Eriocauli Australis Flos



## Source

**\*Flos Eriocauli**  
is the dried capitulum with peduncle of  
*Eriocaulon buergerianum* Koern.  
in the family Eriocaulaceae

**Eriocauli Australis Flos**  
is the dried capitulum with or without peduncle of  
*Eriocaulon australe* R.Br. or  
*E. sexangulare* L.  
in the family Eriocaulaceae

## Overview

Flos Eriocauli is listed in both Chinese Pharmacopoeia (2020) and Schedule 2 of the Chinese Medicine Ordinance, but Eriocauli Australis Flos is not listed in either references. According to the *Herbology Research, Review and Identification of Chinese Medicinal Materials, the non-Authorization Species in Guangdong, Guangxi, Hong Kong and Macau*, the capitulum or whole part of *Eriocaulon buergerianum* is used medicinally as Flos Eriocauli in most areas of China, while Guangdong, Guangxi and Fujian customarily use *E. australe* and *E. sexangulare* of the same genus as medicines, which are collectively known as Eriocauli Australis Flos. However, due to the lack of research on the chemical compositions, biological activities and clinical efficacy of the Eriocauli Australis Flos, the similarities and differences with the Flos Eriocauli are still to be explored, thus, they should be used accordingly.

Note:

\*Its name in the Chinese Pharmacopoeia (2020) is “Eriocauli Flos”.

## Key identification features

### Macroscopic features of Flos Eriocauli decoction pieces



1 cm

◆ Soft



Semi-spherical or sub-spherical inflorescence



Bract is loosely arranged, yellowish-white or light yellowish-brown and the surface has white short hairs which are easily fallen off



Involucre bract is light yellowish-green, lustrous, obovate or sub-rounded and arranged in several layers



Scape is tenuous, yellowish-green or yellowish-brown and has several twisted ridges

5 mm

### Micro-morphological features

A: Glabrous



(Outer surface of the involucre bract)

500  $\mu$ m

B: With densely grown long hairs



(Surface of the inflorescence receptacle)

500  $\mu$ m



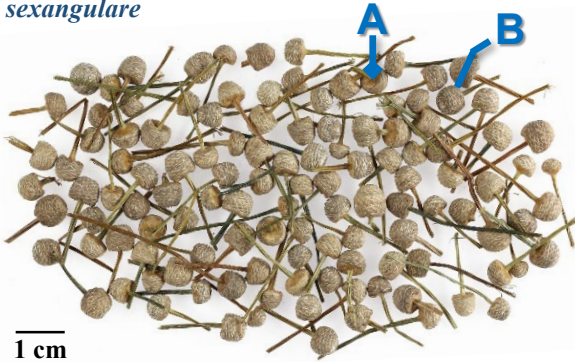
## Macroscopic features of Eriocauli Australis Flos



*E. australe*

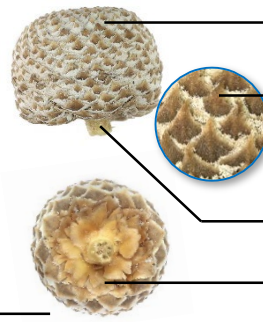


*E. sexangulare*



◆ Hard

*E. australe*



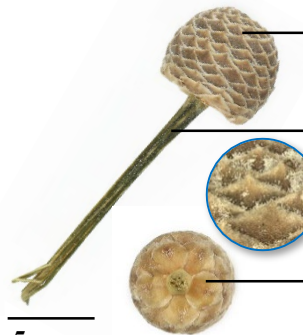
Semi-spherical or oblate inflorescence

Bract is tightly arranged, yellowish-brown, greyish-brown or brown and the surface has white short hairs which are dense and easily fallen off

Scape is mostly removed or only has a short section remained

Involucral bract is yellowish-brown or light brown, ovate or sub-reniform and frequently splitted and arranged in several layers

*E. sexangulare*



Semi-spherical or semi-prolate spheroidal inflorescence

Scape is tenuous, green, yellowish-green or yellowish-brown and has several twisted ridges

Obovate or sub-rounded involucral bract

## Micro-morphological features

*E. australe*

A: With translucent long hairs



(Outer surface of the involucral bract) 500 μm

B: With densely grown long hairs



(Surface of the inflorescence receptacle) 500 μm

*E. sexangulare*

A: With white short hairs



(Outer surface of the involucral bract) 500 μm




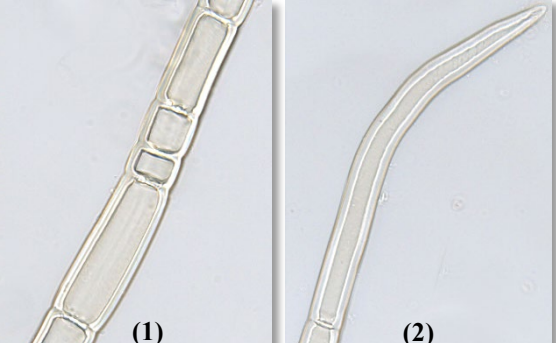


B: Glabrous



(Surface of the inflorescence receptacle) 500 μm



Microscopic feature comparison of Flos Eriocauli decoction pieces and Eriocauli Australis Flos powder

	Epidermal cell of pericarp	Non-glandular hair
Flos Eriocauli decoction pieces	 <p>Polygonal in surface view, anticlinal wall with semi-oblong or semi-circular thickening which is barely found at the corners</p>	 <p>Numerous, extremely long, mostly broken, frequently twisted, consists of several cells, thin wall</p>
Eriocauli Australis Flos ( <i>E. australe</i> )	 <p>Polygonal in surface view, anticlinal wall with semi-circular thickening which is mainly located at the corners</p>	 <p>Numerous, extremely long, mostly broken, consists of several to 20s of cells, cells near the base are often vary in length(1), cells near the apex are relatively long(2), wall is slightly thick or thick</p>
Eriocauli Australis Flos ( <i>E. sexangulare</i> )	 <p>Polygonal in surface view, anticlinal wall with semi-circular thickening which is mainly located at the corners</p>	 <p>Observable, extremely long, mostly broken, consists of several cells, wall is slightly thick or thick</p>

50 μm

## Summary

Major differences in the features Flos Eriocauli decoction pieces and Eriocauli Australis Flos:

		Flos Eriocauli decoction pieces	Eriocauli Australis Flos	
			<i>E. australe</i>	<i>E. sexangulare</i>
Macroscopic and micro-morphological features	Texture	Soft	Hard	
	Outer surface of the involucral bract	Glabrous	With long hairs	With short hairs
	Surface of the inflorescence receptacle	With long hairs	With long hairs	Glabrous
Microscopic features	Epidermal cell of pericarp	Thickening is barely found at the corners	Thickening is mainly located at the corners	
	Non-glandular hair	Numerous, consists of several cells	Numerous, consists of several to 20s of cells	Observable, consists of several cells



## Additional information

### Photo of crude Flos Eriocauli



- Semi-spherical capitulum, 4-5 mm in diameter
- The base has bracts tightly arranged in layers. The bract is light yellowish-green and lustrous
- With white short hairs densely grown at the margin of the upper part
- The apex of the inflorescence is greyish-white
- Numerous black anthers and fine yellowish-green unripe fruits are observable after the inflorescence is broken by rubbing
- Pedicel is tenuous and varying in length, less than 1 mm in diameter, light yellowish-green and has several twisted ridges

- ◆ Soft
- ◆ Slight odour and weak taste



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