

# Cortex Acanthopanacis versus Cortex Periplocae



## Source

### \*Cortex Acanthopanacis

is the dried root bark of  
*Acanthopanax gracilistylus* W. W. Smith  
in the family Araliaceae

### Cortex Periplocae<sup>#</sup>

is the dried root bark of  
*Periploca sepium* Bge.  
in the family Asclepiadaceae

## Overview

Both Cortex Acanthopanacis and Cortex Periplocae are Chinese Materia Medica (CMM) listed in Schedule 2 of the Chinese Medicine Ordinance and the Chinese Pharmacopoeia (2020). According to the *Species Systematization and Quality Evaluation of Commonly Used Chinese Traditional Drugs*, the source of “Wu jia pi” is very complicated. Among them, Cortex Periplocae is used as “Wu jia pi” in most provinces and regions, especially in the Northern region of China, thus, it is also called the “Northern Wu jia pi”. According to the Chinese Pharmacopoeia, both Cortex Acanthopanacis and Cortex Periplocae can dispel wind and eliminate dampness, induce diuresis to alleviate edema, and strengthen sinews and bones. However, Cortex Acanthopanacis can also tonify and replenish the liver and kidney without toxicity, while Cortex Periplocae is toxic, therefore these two CMM should be used carefully.

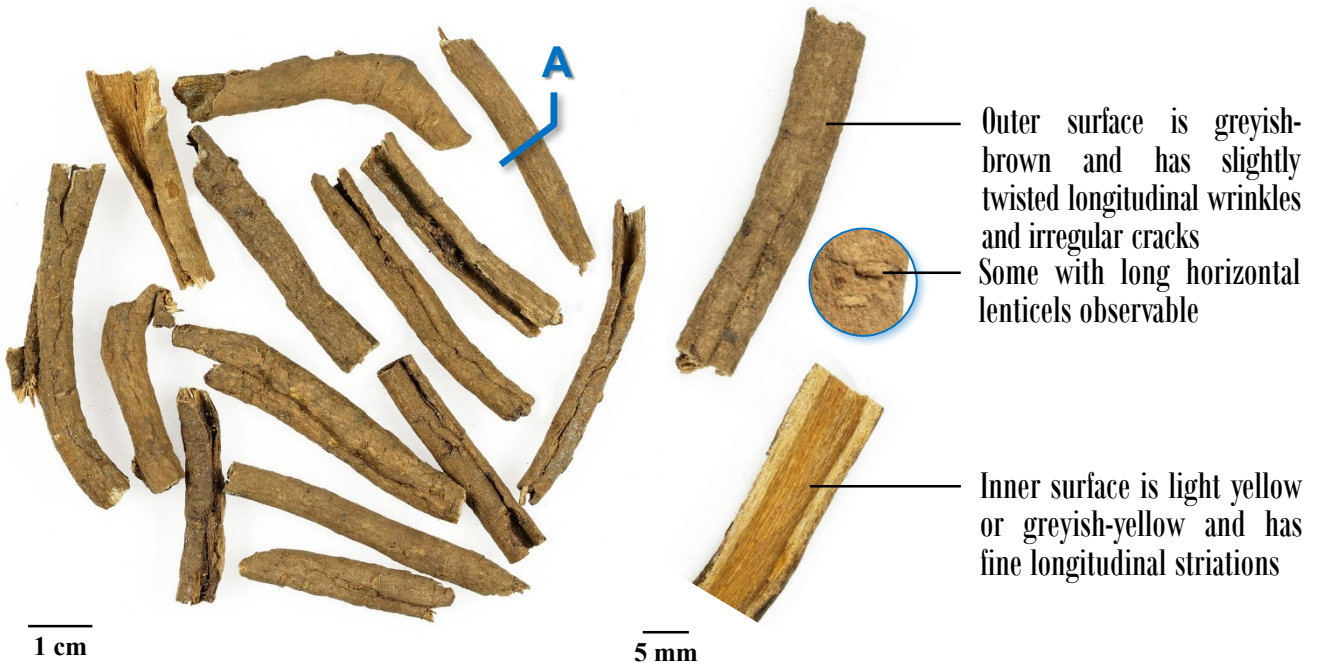
Note:

\*Its name in the Chinese Pharmacopoeia (2020) is “Acanthopanacis Cortex”.

<sup>#</sup>Its name in the Chinese Pharmacopoeia (2020) is “Periplocae Cortex”.

## Key identification features

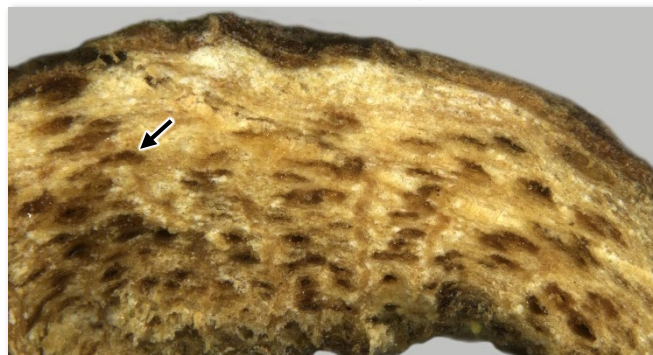
### Macroscopic features of Cortex Acanthopanax



◆ Slight aroma

### Micro-morphological feature

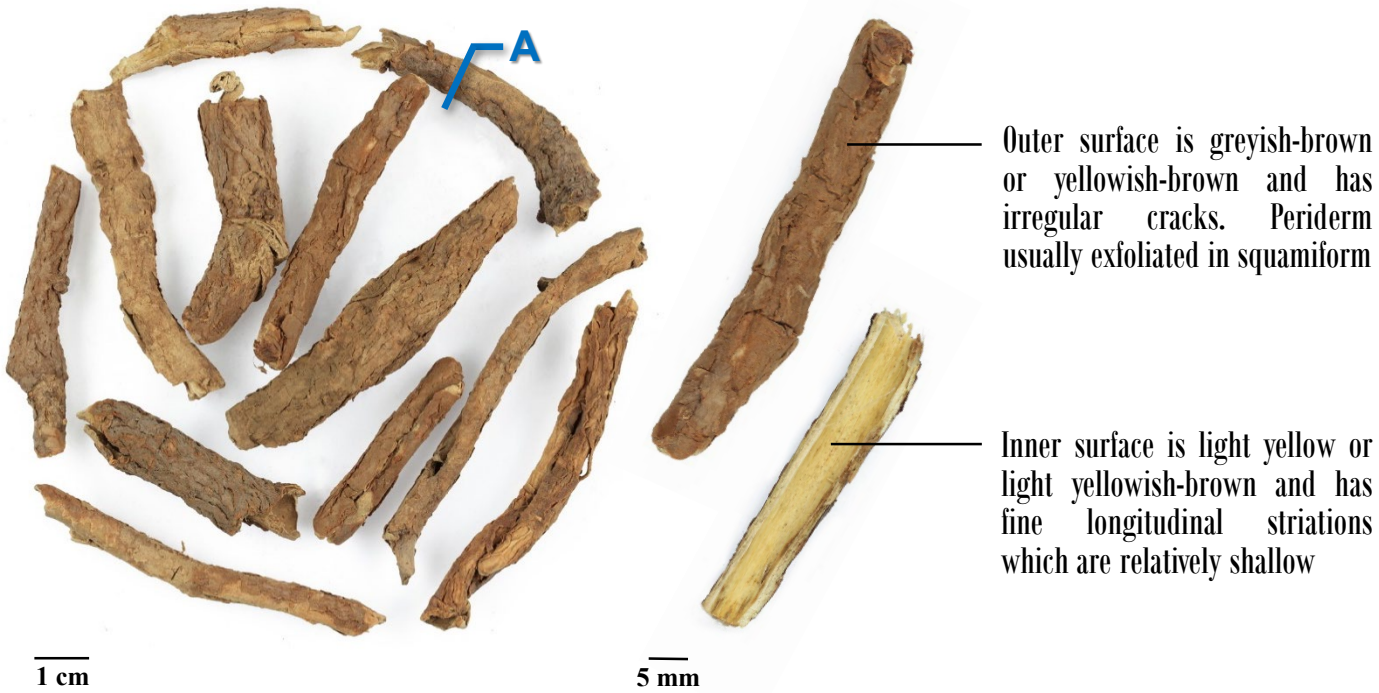
A: Bark with yellowish-brown or brown dotted secretory canals scattered, some secretory canals are hollow



(Cut surface)

500 μm

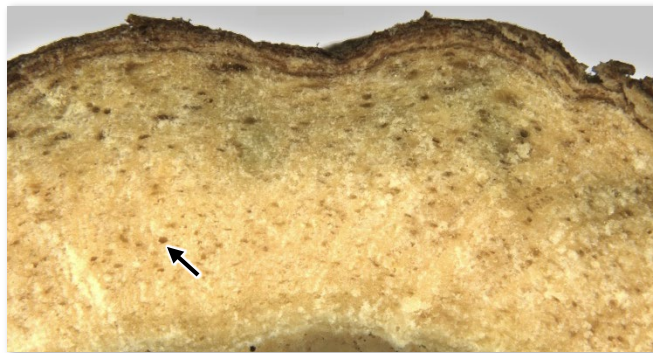
## Macroscopic features of Cortex Periplocae 🔍



◆ Characteristic aroma

### Micro-morphological feature

A: Bark usually observed with small scattered holes



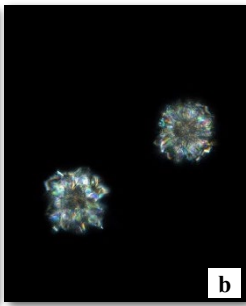
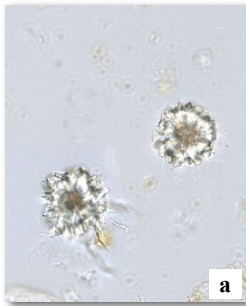

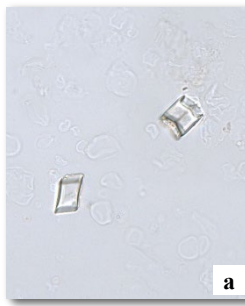
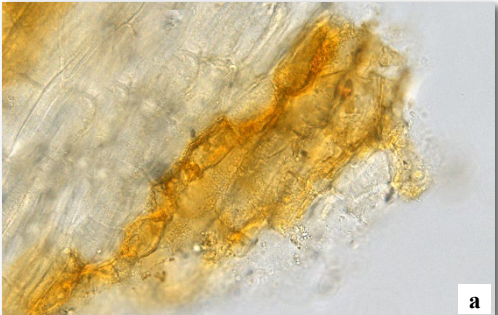



(Cut surface)

500 µm



Microscopic feature comparison of Cortex Acanthopanax  
and Cortex Periplocae powder



	Cortex Acanthopanax	Cortex Periplocae
Crystal of calcium oxalate	<div></div> <p>Cluster of calcium oxalate scattered or present in the parenchymatous cell; polychromatic under the polarized light microscope</p>	<div></div> <p>Prism of calcium oxalate scattered or present in the parenchymatous cell; polychromatic under the polarized light microscope</p>
Fragment of secretory canal	<div></div> <p>Contain light yellow or yellowish-brown secretions</p>	<div></div> <p>Absent</p>
Laticifer	<div></div> <p>Absent</p>	<div></div> <p>Present in parenchyma, contains colourless droplet-like or granular secretions</p>

a. features under bright field; b. features under polarized light

50  $\mu$ m

## Summary

Major differences in the features between Cortex Acanthopanax and Cortex Periplocae:

		Cortex Acanthopanax	Cortex Periplocae
Macroscopic and micro-morphological features	<b>Outer surface</b>	With longitudinal wrinkles and irregular cracks	With irregular cracks and periderm usually exfoliated in squamiform
	<b>Odour</b>	Slight aroma	Characteristic aroma
	<b>Cut surface</b>	With dotted secretory canals scattered	With small holes scattered
Microscopic features	<b>Crystal of calcium oxalate</b>	Cluster of calcium oxalate	Prism of calcium oxalate
	<b>Fragment of secretory canal</b>	Present	Absent
	<b>Laticifer</b>	Absent	Present

For more information, please refer to the [Hong Kong Chinese Materia Medica Standards website](#):



Acanthopanax Cortex - Hong Kong Chinese Materia Medica Standards (Volume 6)  
Periplocae Cortex - Hong Kong Chinese Materia Medica Standards (Volume 6)



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