Petunia Peacock's POSE (four parts)

Full English Transcripts:

Category One: Wavy Leg Work (link)

HELLO and welcome, my darlings, to Petunia Peacock's POSE! I'm your host - Petunia Peacock, of course! And "oh!" what a show we have for you!

Tonight, we have an extraordinary diversity of queens. Over 90, yes 9-0, male peacock spiders looking to show off and win the coveted trophy for best representing their house.

A long, long time ago all these spiders shared a common ancestor. However, today each house represents a different species group where many of the spiders often share similar styles and moves, cha cha!

In today's show we have the venerable house of Pavonis, the conservative house of Velutinus, and the much talked about and newly expanded house of Mingaich.

To understand how these houses evolved spiders from each of these groups will compete in four categories - yes, four!

We will bear witness to a variety of courtship behaviours dancing, leg waving, and viiiiiiiibrating as they try to be noticed by our gorgeous female judges, "Hi judges!".

Petunia Peacock's POSE! Category One: Wavy Leg Work!

In this first category male peacock spiders begin their routine by waving their third legs. They are hoping to catch the eyes of our female judges.

This wavy leg move evolved a long time ago in these spider's common ancestor, and so they all do it. But! Some do it a little differently, as can be seen in house *Maratus jactatus*, whilst others have more recently evolved these adorable little ornamental third leg tufts, [laughs] aren't they just fabulous?! I love it, I really do.

Who will capture the judge's attention? Find out in the next category!

Category Two: Ornamental Abdomens (link)

Welcome back my dears, I'm Petunia Peacock, and we want to know which of these spiders are going to grab the female judges attention. And who is going to have to... sashay away!

They lift their abdomens to show off their sparkling ornamental rump to the judges. Over time, they learned to lift their abdomen and so these dazzling markings began to appear.

However, these ornaments have only recently evolved, and so each of these spiders now have their own unique markings - cool right?!

Other spiders prefer a more understated look - no abdomen lifting or ornaments. Honey -

when you live in sandy habitats, a brightly coloured bottom shaking in the air attracts a lot of... how would you say? UNWANTED PREDATORY ATTENTION.

We interrupt this show with a Natural History NEWSFLASH. Did you know that female spiders were shaking their abdomen long before the males did? Interestingly the females did this to tell the males that they are NOT interested (thank you very much).

Petunia Peacock's POSE! Category Two: Ornamental Abdomens!

The judges have witnessed wavy leg moves and mesmerising markings, but they still don't seem willing to condragulate a winner. Join us in the third category to see what these peacock spiders will do next. OOH I'm excited!

Petunia Peacock's POSE! Category 3: Flaps and Fans (link)

Not only has their abdomen lifting led to vibrant coloured markings, but also these fabulous fans and flaps that enlarge the ornaments on its rump. The female judges are particularly interested in the combination of their ornaments and abdomen movement as an indication of their true quality.

Flaps have independently evolved into all different shapes and sizes. Minimalist flaps, extravagant flaps, and long bristle flaps - like these! Fan variations have rapidly evolved so there are even more different kinds - round fans, elliptical fans, and lobed fans - found here, and here.

The reason for this might be due to two different species of spiders having a baby that has half of each of their genes. And then this new mixed-gene spider has its own babies with one of its parent species of spider, and so its mixed genes are mixed again - giving rise to novel adaptations, like fans!

The judges look like they are almost ready to crown the winner, my dears, but who will own EVERYTHING?! Join us tomorrow for the fourth and final category! I bet you can't wait, my dears!

[Sighs] I'm not going to get any sleep tonight at all.

Petunia Peacock's POSE! Category Four: Goooooood Vibrations (link)

Welcome, my dears, to our final category of Petunia Peacock's POSE - I am your delightful host, Petunia Peacock! In this category, all of our eight-legged contestants are involved - yes, every single one!

What a show! Between their moves they take short breaks to drop their own unique beat. Each spider's unique abdomen pulsation creates vibrations that can be felt by our female judge's little leg hairs. Like their leg waving, these vibrational songs evolved a long time ago in a

common ancestor. Those who are better at vibrating are usually better at dancing - you're telling me!

But, before the judges crown the winning spider this evening, let's hit REPLAY and reflect on the great variety of displays that we have witnessed in this competition, my dears.

The evolution of these extraordinary abilities is still somewhat of a mystery... Are these increasingly fantastic dancing displays selected by females? Did these males evolve these displays without any concern for the females? Or could it be due to demands within their local environments? We simply still do not know.

Now, now, my dears, back to it! Will these spiders be chosen by their judges as best representing their houses and who will be asked to sashay away...

Oh yes, um, we forgot to mention if the judges are not impressed, they might choose to eat them all instead! Now that's some deadly serious SHADE.