

# Jacanas



Wattled Jacana © Elis Simpson

- **Lesser Jacana** *Microparra capensis*
- **African Jacana** *Actophilornis africanus*
- **Madagascar Jacana** *Actophilornis albinucha*
- **Comb-crested Jacana** *Irediparra gallinacea*
- **Pheasant-tailed Jacana** *Hydrophasianus chirurgus*
- **Bronze-winged Jacana** *Metopidius indicus*
- **Northern Jacana** *Jacana spinosa*
- **Wattled Jacana** *Jacana jacana*

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### Family summary:

At the extreme ends of the wader spectrum lie species and families that look as if they ought to be included in other unrelated groups; jacanas are one such family which consists of eight species.

They are a family, which, when you first encounter one trotting merrily across the floating vegetation of a pond, you could easily be forgiven for turning to the gallinule page in your field guide before eventually alighting on the waders.

The name jacana originally came from the Tupi language of Brazilian indigenous tribes. They called it *y-acã-nã* (soft c) meaning 'that which has a loud voice', which was transcribed into Portuguese thus: *Jaçanã* pronounced 'jassanah' with the accent on the last syllable. Many now, especially outside Portuguese and Spanish speaking Latin America, pronounce the word 'jakarna' with the accent on the middle syllable.



Comb-crested Jacana © Elis Simpson

### Colloquial names:

- Lily Trotter – after their habit of walking on lily leaves.
- Lotus Bird – after a species of floating plant life.
- Jesus Bird or Christ bird – after the fact that they can seemingly walk on water when the lily leaf is slightly submerged.
- 'Little white water princess' – from Assam to describe the Pheasant-tailed Jacana. *Rani didao gophita*.
- 'Cat teal' in Sri Lanka on account of its mewing call or *juana* in Sinhalese.
- Mexican Jacana – alternative name for Northern Jacana used in USA where the nearest normal range of the bird is in Mexico.

### Taxonomy:

<b>Superfamily:</b>	<b>JACANOIDEA</b> Jacanas and Painted Snipes (Chenu & des Murs, 1854 (1840)
<b>Family:</b>	<b>JACANIDAE</b> (Stejneger 1885)
<b>Genera:</b>	<b><i>Microparra</i></b> – Greek; <i>mikros</i> small; [ <i>Parra</i> was genus name for jacanas (Linnaeus 1766)] (Cabanis 1877). <b><i>Actophilornis</i></b> – Greek; <i>akte</i> riverbank, coastal strand; <i>philos</i> loving ( <i>phileo</i> to love); <i>ornis</i> bird (Oberholser 1925). <b><i>Irediparra</i></b> – After Tom Iredale (1800-1972) [ <i>Parra</i> was genus name for jacanas (Linnaeus 1766)] (Mathews 1911). <b><i>Hydrophasianus</i></b> – Greek; <i>hudro</i> – water-; <i>phasianos</i> pheasant (Wagler 1832). <b><i>Metopidius</i></b> – Greek; metopidios on the forehead (metopon forehead, brow) (Wagler 1832). <b><i>Jacana</i></b> – Portuguese <i>Jaçanã</i> derived from Tupi language of Brazilian indigenous tribes <i>y-acã-nã</i> (soft c) meaning 'that which has a loud voice' (Brisson 1760).

Some authorities recognize only two or three genera based on differences in morphology and plumage of the wing. However, these systems are not currently widely recognised.

When Linnaeus first named the Northern Jacana in 1758, he doubtless had never seen one, except as a skin or perhaps a mounted specimen, and so could be excused for thinking it was related to the gallinules and coots, resulting in him giving it the generic name *Fulica* in common with the coots. The specimen was also erroneously labelled as originating from South America; it was collected in Western Panama in Central America. In South America the Northern Jacana is replaced by the Wattled Jacana which Linnaeus described some eight years later in 1766. In the latter case he named the species with the genus name of *Parra*. This name had come from some mythical bird that certainly wasn't a jacana and even Linnaeus himself wasn't happy with it, suggesting that it may not be suitable. The *Parra* connection has persevered though, in the genera of Comb-crested Jacana *Irediparra* and the Lesser Jacana *Microparra*.

- ***Parra*** was the first genus given to this group of birds by Linnaeus in 1758.
- In the past, jacanas have been placed in the order Gruiformes (cranes and allies), in the family Rallidae (crakes and rails). The fact that they have precocial young, a trait they share with the other waders, and many bony structures that place them alongside other waders, separates them from the crakes and rails which do not.
- Jacanas are closely related to painted-snipes and together form a superfamily; Jacanoidea.

### Fossil species:

- †*Jacana farrandi* Olson & Storrs 1976 Pliocene, Florida
- †*Nupharanassa bulotum* Rasmussen *et al.* Lower Oligocene, Egypt
- †*Nupharanassa tolutaria* Rasmussen *et al.* Lower Oligocene, Egypt
- †*Janipes nymphaeobates* Rasmussen *et al.* Lower Oligocene, Egypt

### Distribution:

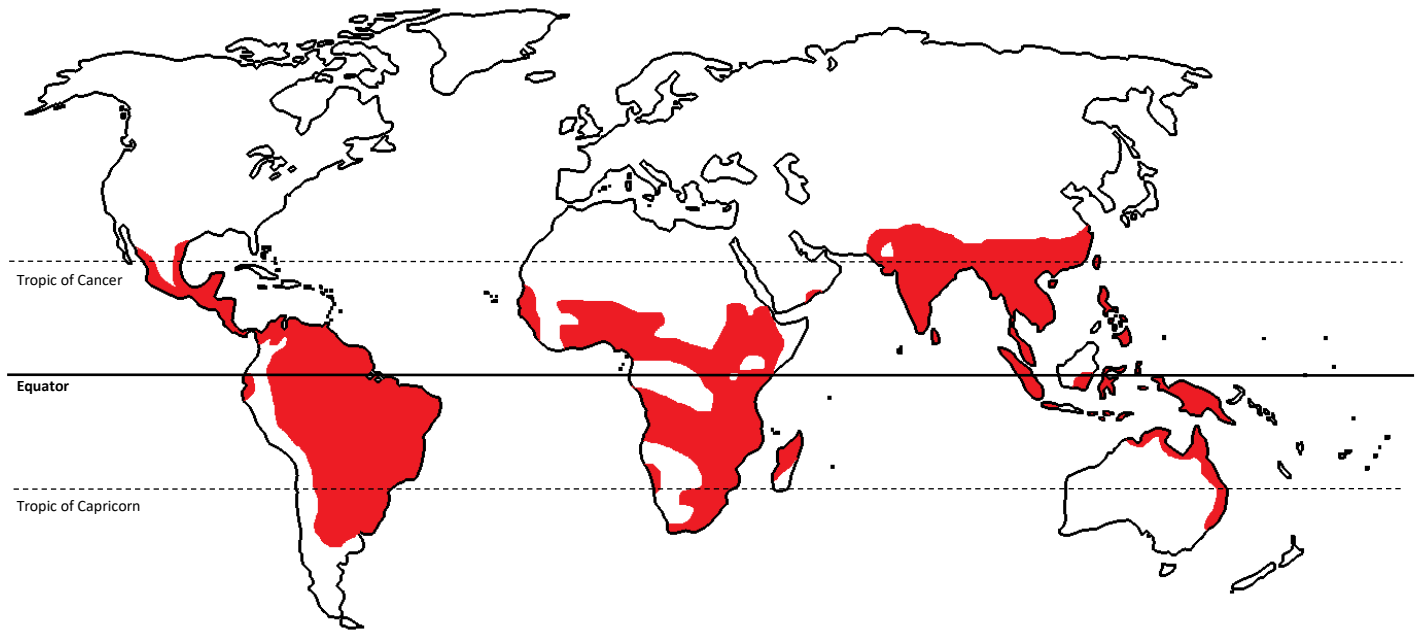


Fig 1. Approximate distribution of jacana species (not seasonal)

- Nowhere has a super abundance of jacanas in terms of variety, two species being the maximum. They chiefly belong to the warmer climes, predominantly within the tropics around the world.
  - ◇ Africa – African, Lesser and Madagascar Jacanas
  - ◇ Asia – Pheasant-tailed and Bronze-winged Jacanas
  - ◇ Australasia – Comb-crested Jacana
  - ◇ North, Central and South America – Northern and Wattled Jacanas
- Europe is the only continent that has no examples of jacana whilst North America barely has one species on its southern margin living there today, although a Pliocene fossil of a long extinct species, *Jacana farrandi*, was unearthed in Florida. The USA is however teased in southern Texas with Northern Jacanas at the very extreme north of their range occasionally crossing the border and some historical breeding records. The first record of Northern Jacana in the United States (where it is sometimes known as Mexican Jacana), appeared in the bulletin of the Nuttall Ornithologist Club for 1876. Dr Merrill saw some near Fort Brown in Texas and subsequently shot at the birds, wounding one but not 'securing' it.
- Most species are mainly resident although they will abandon areas when they dry up and colonise areas that become flooded or are created artificially. These movements can mean that jacanas turn up in unusual places. The Pheasant-tailed Jacana is however migratory, at least in part, where birds in the north of the range disappear in the winter and at the same time birds will be found further south of their breeding range. It is unknown if the whole population moves south or whether the northern migrants leap frog those in the resident zone to appear further south.



Irregular movements mean jacanas can turn up in unusual and unexpected places Wattle-necked Jacana on a beach in São Paulo State, Brazil © Elis Simpson

### Adaptations:

- Jacanas possess exceptionally elongated toes and claws, especially the hind claw which is usually very straight or upturned, this allows them to spread their weight across the surface of the floating vegetation enabling them to walk upon it.
- Most Jacanas exhibit role reversal between the sexes. Males will usually only breed once per season but aggressively take sole charge of the young and feeding territory. Females will mate with more than one male where available but will help to defend the males' territories whilst not helping at all with the rearing of the young.



Jacanas possess exceptionally elongated toes and claws © Elis Simpson

- Generally in the natural world males are larger than females but in some species, including the jacanas, this is reversed. Indeed they exhibit the most extreme example of this where female Pheasant-tailed Jacanas can be as much as twice as heavy as the males. The least size dimorphic in this family species is the Lesser Jacana where the females are only slightly (4%) larger than the males.



Jacanas are strong swimmers; African Jacana © [Michael S Haworth](#)

- Both adults and young birds are strong swimmers and will dive to avoid danger, sometimes remaining with just the tip of the bill and nostril above water clinging to underwater vegetation.
- Three jacana species have sharp metacarpal spurs, the Pheasant-tailed, Northern and Wattled Jacana, the former in Asia and the latter both Neotropical species. This is an attribute that they also share with 15 out of the 26 lapwing species. Other jacana species have horny knobs and others nothing at all.
- Six species possess a frontal shield and two do not these being Lesser with brown feathering and Pheasant-tailed which has an intense white forehead.

- Some species within the family have enlarged flattened radii (bones in the wings - see Fig 2). These are thought to allow the males a unique method of incubating the eggs and brooding the young, where they wrap the wings them under themselves, nestling the eggs and young between the wings and breast. They will also use this method to carry the young with two on each side producing the amusing sight of a bird with large feet sticking out from beneath its wings. Having said this, not all jacanas have this adaptation, the Lesser Jacana in Africa being one of them, but it still carries its young in this manner.

An alternative theory is that the enlarged radii may be used as a weapon in defence or display.

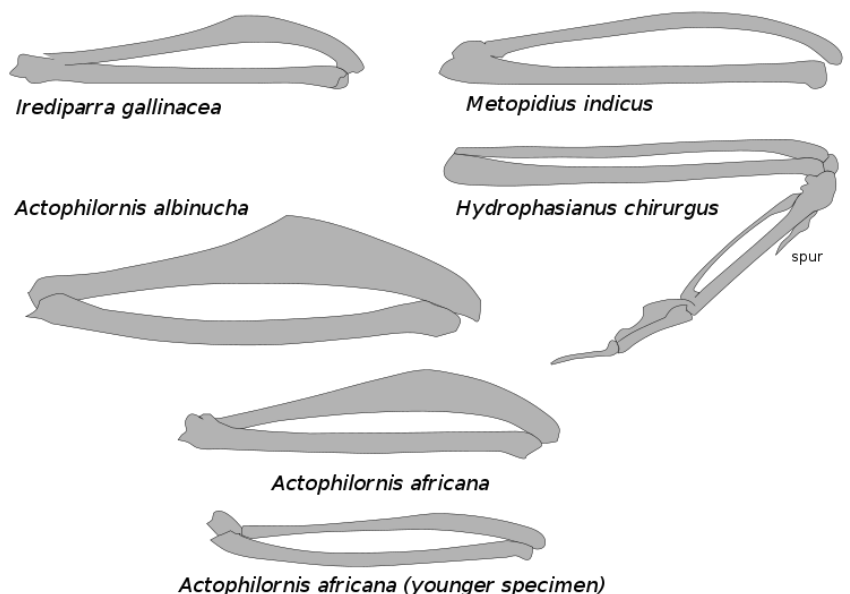


Fig 2. Shyamal, [CC BY-SA 4.0](#) via Wikimedia Commons



### Breeding strategy:

- The majority of jacana species are polyandrous where the situation allows for a female to have more than one mate. The only exception being the Lesser Jacana which is monogamous.
- Males will defend a territory and be exclusively responsible for the eggs and young (except Lesser Jacana where these duties are shared).
- Females will defend one or more males and their territory (except Lesser Jacana).
- Where this role reversal occurs the females are larger than the males and, at least in Northern and Comb-crested Jacanas, actively breeding females are larger than non-breeding females. Non-breeding females can increase their weight when they attempt to breed.
- Pheasant-tailed Jacana only species to have a distinct breeding plumage..
- Eggs possess 'plugged pores' which ensures the eggs do not get waterlogged when subjected to water by a wet nest or when the males need to move the eggs, which they do by either carrying them under their wing or floating them to a new location.
- Slow fledging rate in all species 10-12 weeks, the young will stick close to the male for around half this time.
- It has been reported that the very young will only feed when they are accompanied by a feeding male. If that male gets distracted for some reason or worse still deserts, or dies, leaving the chicks alone, although they are more than capable of feeding themselves they will simply stop doing so. They will loaf around and have been known to starve themselves to death if the male does not return.



African Jacana eggs © [Michael S Haworth](#)



Male African Jacana carrying chicks © [Michael S Haworth](#)



Bronze-winged Jacana chick © Sunil Singhal



### Biology:

- Males and females of all species are almost identical in appearance differing only in size, but most male Comb-crested Jacanas have larger combs than females; however this is difficult to discern in the field.
- African Jacanas moult all their primaries simultaneously rendering them flightless. All others do so gradually from 10 to 1 (descendent) but the Lesser Jacana does so from 1 -10 (ascendant).
- Over short distances jacanas appear to be weak fliers as they fly laboriously with their feet dangling. However they are stronger than they look in these situations and when they fly considerable distances they can fly strongly with their feet elevated and protruding beyond the tail. Pheasant-tailed Jacanas undergo regular seasonal migration and some even migrate from Asia to the Arabian peninsula when they will have to make a sea crossing.
- Only 10 tail feathers 12-28 in other waders



Pheasant-tailed Jacanas (adult left and juvenile) in flight © Elis Simpson

### Threats:

Across the world there is ongoing destruction of wetlands by filling or draining. In addition the overgrazing, and destruction of vegetation, either deliberately or inadvertently, by the introduction of non-native species is also an ever increasing problem for these birds with very specific requirements. The development of aquaculture or rice fields converted from suitable habitat and the pollution of waterways are also contributory factors. Climate change will also affect jacanas in that it causes changes to weather pattern that will in turn affect rainfall and therefore the survival or temporary creation of suitable wetlands.

### Conservation:

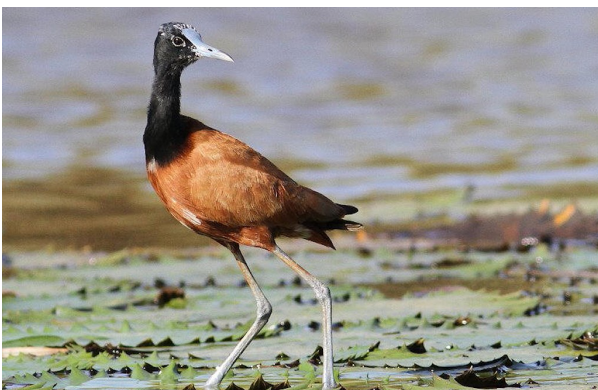
Of the eight extant species; all but one are listed as Least Concern on the IUCN Red List of Threatened Species. The Madagascar Jacana is Near Threatened, for which no specific conservation projects were found, although it is afforded some protection as it occurs in a number of protected areas.



Northern Jacana; © Juan Zamora



Bronze-winged Jacana © Charles J. Sharpe



Madagascar Jacana © Laval Roy



Lesser Jacana © Elis Simpson

## Acknowledgements;

Compiled and edited by Rick Simpson.

Tony Parker for research of Biological content.

Photographers; Michael Haworth, Laval Roy, Charles J. Sharpe, Elis Simpson, Sunil Singhal, Juan Zamora  
Douglas Russell - British Natural History Museum for access to the BNHM egg collection.

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