

Short Communication

The endangered and endemic Tutema (*Porphyriops melanops bogotensis* Chapman) and the Blue-winged Teal (*Spatula discors*) use an artificial pond in Boyacá State, Colombia

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Abstract - Tutema (*Porphyriops melanops bogotensis* Chapman, 1914) and Blue-winged Teal (*Spatula discors*) have been observed inhabiting artificial ponds near El Salitre wetland in the Andes near Paipa (5°46'48.47" N, 73°07'1.49" W), Boyacá State, Colombia. The Tutema is an endemic and endangered bird species that belongs to the Rallidae family. The Blue-winged Teal is a migrant duck species. The current investigation provides evidence that Tutema continues to use the artificial ponds near the El Salitre wetland. This species is not scared of human presence. Tutema continues to share its habitat with domestic ducks in one of the artificial ponds, as previously reported. The Blue-winged Teal has been observed swimming in the open water of an artificial pond and drinking its water. They were scared by human presence and flew away. The two species studied have taken advantage of artificial waterways, which have proven to be key for biodiversity conservation in this part of Colombia.

Key words: Anatidae, Rallidae, South America, Andes, aquatic.

Riassunto - Uso di uno stagno artificiale da parte della gallinella fianchiamacchiati (*Porphyriops melanops bogotensis* Chapman), specie endemica e dell'alzavola americana (*Spatula discors*), in Colombia.

La gallinella fianchiamacchiati (nome locale: tutema; *Porphyriops melanops bogotensis*) e l'Alzavola americana (*Spatula discors*) sono state osservate negli stagni artificiali vicino alla zona umida di El Salitre, nelle Ande, vicino a Paipa (5°46'48.47" N, 73°07'1.49" O), Stato di Boyacá, Colombia. La gallinella fianchiamacchiati è una specie endemica e minacciata. L'Alzavola americana è una specie migratrice. L'attuale indagine fornisce prove che le due specie utilizzano gli stagni artificiali vicino alla zona umida di El Salitre. La gallinella fianchiamacchiati non teme la presenza umana e condivide il suo habitat con le anatre domestiche in uno degli stagni artificiali. L'Alzavola americana è stata osservata nuotare in acque libere di uno stagno artificiale e mentre ne beveva l'acqua; alcuni individui, spaventati dalla presenza umana, sono volati via. Le due specie studiate hanno sfruttato i corpi

d'acqua artificiali, che si sono rivelati fondamentali per la conservazione della biodiversità in questa parte della Colombia.

Parole chiave: Anatidi, Rallidi, Sudamerica, Ande, acquatico.

Tutema (*Porphyriops melanops bogotensis* Chapman, 1914) is an endemic and endangered bird species that belongs to the Rallidae family and inhabits only Boyacá and Cundinamarca States in the Andes of Colombia (Castro-Vargas & Rosselli, 2020; Ramírez, 2024a; Ramírez, 2024b). This species lives in both natural and artificial wetlands, ponds, lakes, and water channels (Hilty & Brown, 2009; Castro-Vargas & Rosselli, 2020). Due to habitat loss, it has adapted to use artificial waterbodies, such as ponds, in Boyacá, State, Colombia (Ramírez, 2024a; Ramírez, 2024b). Previous research documented that Tutema used two artificial ponds near the Salitre wetland close to the town of Paipa (5°46'48.47" N, 73°07'1.49" W), Boyacá State, Colombia (Ramírez, 2024b). Artificial pond 1 measured 1 m in depth, had a fenced perimeter of 10 m, and was encircled by Cyperaceae plants and grass. In this habitat, two Tutema individuals cohabited with seven domestic ducks (*Anas platyrhynchos domesticus* Linnaeus, 1758). Ducks were unaggressive with Tutema and shared their habitat and even food. Artificial pond 2 has a perimeter of 50 m, about 1 m in depth, coupled with submerged aquatic plants, such as Cyperaceae (*Cyperus* sp.). On land, it was encircled by a fence of Magenta Lilly Pilly (*Syzygium paniculatum* Gaertn) and by grass. In this pond habitat, two Tutema individuals were observed with one common duck individual that was aggressive towards them (Ramírez, 2024b). In another research, Ramírez (2024a) reported that Tutema was able to breed in one of the artificial ponds. Two adults were observed with their chicks in artificial pond 2. This provided evidence that the species has been able to co-exist in an artificial pond with human presence and intervention.

The Blue-winged Teal (*Spatula discors*) is a migrant duck species that inhabits El Salitre wetland in the Andes near Paipa (5°46'48.47" N, 73°07'1.49" W), Boyacá State, Colombia. This species is migratory and flies from its nesting sites in Canada to the Gulf Coast in the United

Bogotá, Colombia.

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Received for publication: 17 August 2025

Accepted for publication: 26 November 2025

Online publication: 3 June 2026

States, Central America, the Caribbean, and Northern South America, Argentina, and Uruguay (Hilty & Brown, 2009; Aguilar *et al.*, 2020; Cox *et al.*, 2023; Holmes & Hodgson, 2023). Recently, Ramírez (2025) documented the influence of solar irradiance (watts/m^2) on a population of *Spatula discors* inhabiting. The number of ducks was observed and counted from 6:00 to 8:00 am, 10:00 to 12:00 pm, and 4:00 to 6:00 pm. Solar irradiances from 25% (mean 148.5 watts/m^2) to 100% (mean 594 watts/m^2) were obtained by a nearby weather station. In conclusion, Ramírez (2025) reported that the number of Blue-winged Teal individuals was greater under low solar irradiance of 25% (mean 148.5 w/m^2). A lower number of individuals was associated with higher irradiance of 75 (mean 445.5 w/m^2) and 100% (mean 594 w/m^2).

The current investigation provides evidence that tutema continues to use the artificial pond (artificial ponds 1 and 2) near El Salitre wetland in Boyacá state, Colombia (Figs. 1 and 2). The observations were made on 2 January 2024 at 4:40 pm. The birds in both ponds were not scared by human presence. In artificial pond 1, only one Tutema individual was observed in the water, near a small island in the center of the pond. Only two common ducks remain (Fig. 1). It is possible that the other Tutema individual flew to the nearby El Salitre wetland. Tutema is capable of short flights, and this will enable it to share different types of habitats. Moreover, Tutema continues to share its habitat with the common duck, as has been documented in a previous study (Ramírez, 2024b).

In artificial pond 2, two Tutema individuals remained

swimming, often nibbling on submerged aquatic plants (Fig. 2). These birds were not scared by human presence and remained calm and swimming in the pond after the author approached them to take photographs. Previous reports indicated that individuals in this pond were scared and flew away from human presence. No domestic ducks were observed in this pond as was previously reported (Ramírez, 2024b).

In artificial pond 2, three individuals of the Blue-winged Teal were observed swimming in the open water on 2 January 2024 at 4:22 pm, and the author was able to take a few photographs (Fig. 3). The ducks have been previously recorded in El Salitre wetland, forming a dense population (Ramírez, 2025). The current research provides evidence that the Blue-winged Teal is using an artificial pond. The ducks were observed drinking water from artificial pond 2, which suggests they are not only visiting this habitat but obtaining a benefit from it. The water quality from the El Salitre wetland and the two nearby artificial ponds has not been assessed, but it would be interesting to determine if this influences ducks to visit the artificial pond.

The current investigation shows that artificial ponds are an important habitat for Tutema and the Blue-winged Teal. The two ponds are located within a private club that protects biodiversity by maintaining these habitats. More research is warranted to study the relevance of artificial ponds for the Blue-winged Teal. The two species studied have taken advantage of artificial waterways, which have proven to be key for biodiversity conservation in this part of Colombia.



Fig. 1 – A Tutema individual cohabiting in pond 1 with the some domestic ducks. The blue arrows show the location of two ducks within the grass, and the yellow arrow shows a Tutema individual near the central island in artificial pond 1. / Un individuo di gallinella fianchimacchiati convive nello stagno 1 con alcune anatre domestiche. Le frecce blu mostrano la posizione di due anatre nell'erba, mentre la freccia gialla mostra un individuo di gallinella vicino all'isola centrale nello stagno artificiale 1.



Fig. 2 – Tutema individuals inhabiting artificial pond 2. Top image: a pair of birds swimming near the shore. Lower image, detail of a Tutema individual. Note the green beak and red eye. / Fig. 2 Individui di Gallinella fianchimacchiati che vivono nello stagno artificiale 2. Immagine in alto: una coppia di uccelli che nuota vicino alla riva. Immagine in basso, dettaglio di un individuo. Si noti il becco verde e l'occhio rosso.



Fig. 3 – Blue-winged Teal (*Spatula discors*) individuals in Artificial Pond 2. Top image, three individuals swimming in the open water. Lower image, two ducks drinking water from the pond. / Individui di *Alzavola americana* nello stagno artificiale 2. In alto, tre individui che nuotano in acque libere. In basso, due anatre che bevono acqua dallo stagno.

Acknowledgments

Thanks to L. Marien for her valuable help.

Conflict of interest

The author has no competing interests to declare.

Ethics approval

This is an observational study and no ethical approval is required.

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