

# Birds over Benches

Residents of a fast-growing Indian city pay the most for bird diversity in their lakes, and they do not need to know the birds to value them

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Göttingen · 16–18 September 2026  
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TROPENTAG 2026

Urban lakes are expected to serve both biodiversity and people (Kowarik et al., 2025). Coimbatore's Noyyal-fed lakes host around 133 bird species and are being rejuvenated as public spaces (Quadros et al., 2014; Parameswaran et al., 2023). When conservation money must be split between habitat and amenities, what do residents pay for, and does the answer depend on knowing what lives there?

A household survey of 354 residents of Coimbatore, India, was conducted from June to October 2025 and included a discrete choice experiment (Hanley et al., 1998). Bird diversity served as a visible, recognizable representation of biodiversity. Alternatives varied in bird diversity, lake cleanliness, recreational amenities, and an annual household contribution (INR); preferences were estimated with a panel mixed logit model (McFadden and Train, 2000), and willingness to pay (WTP) was derived as coefficient ratios.

## 1 Familiarity with local wetland birds

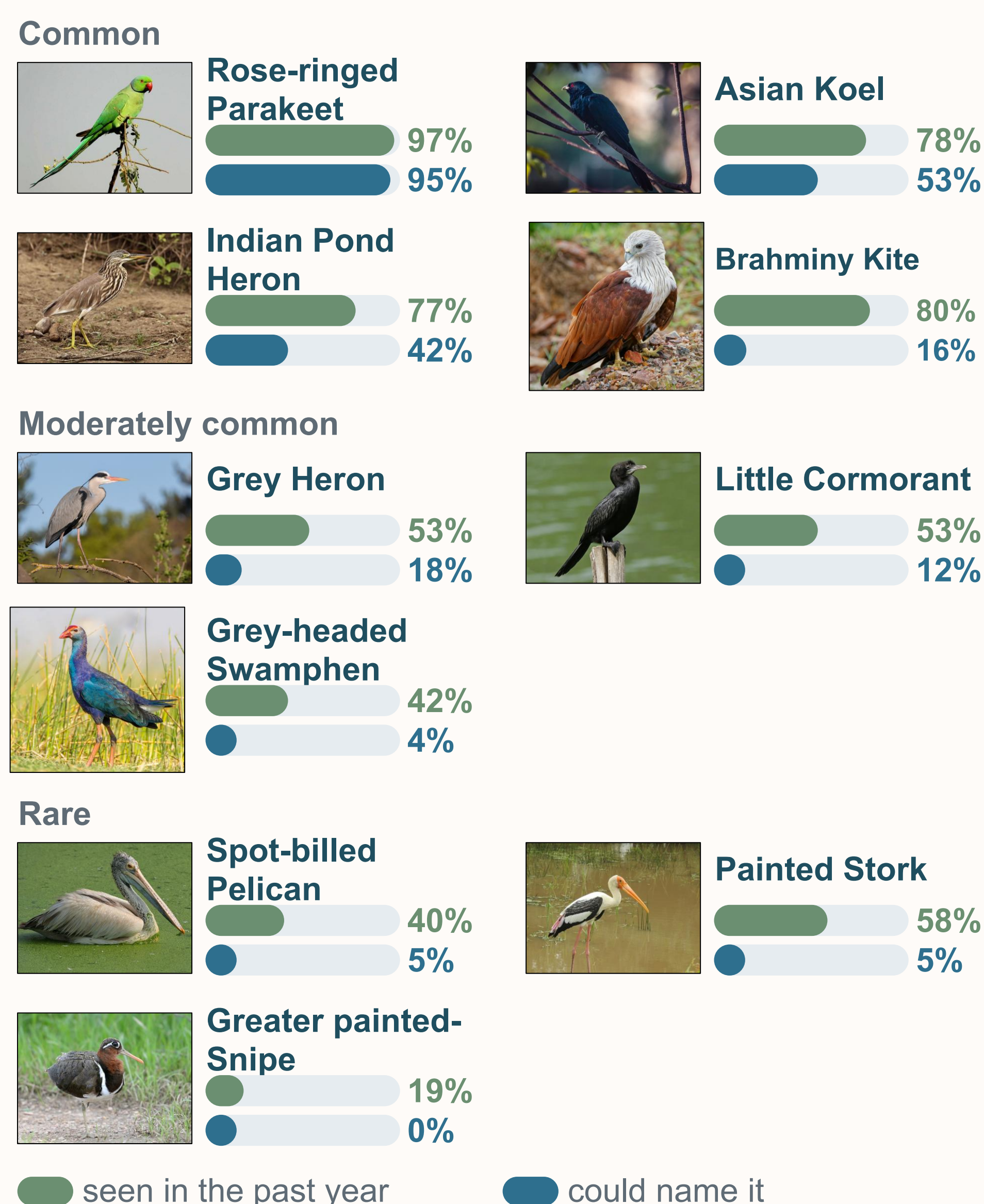
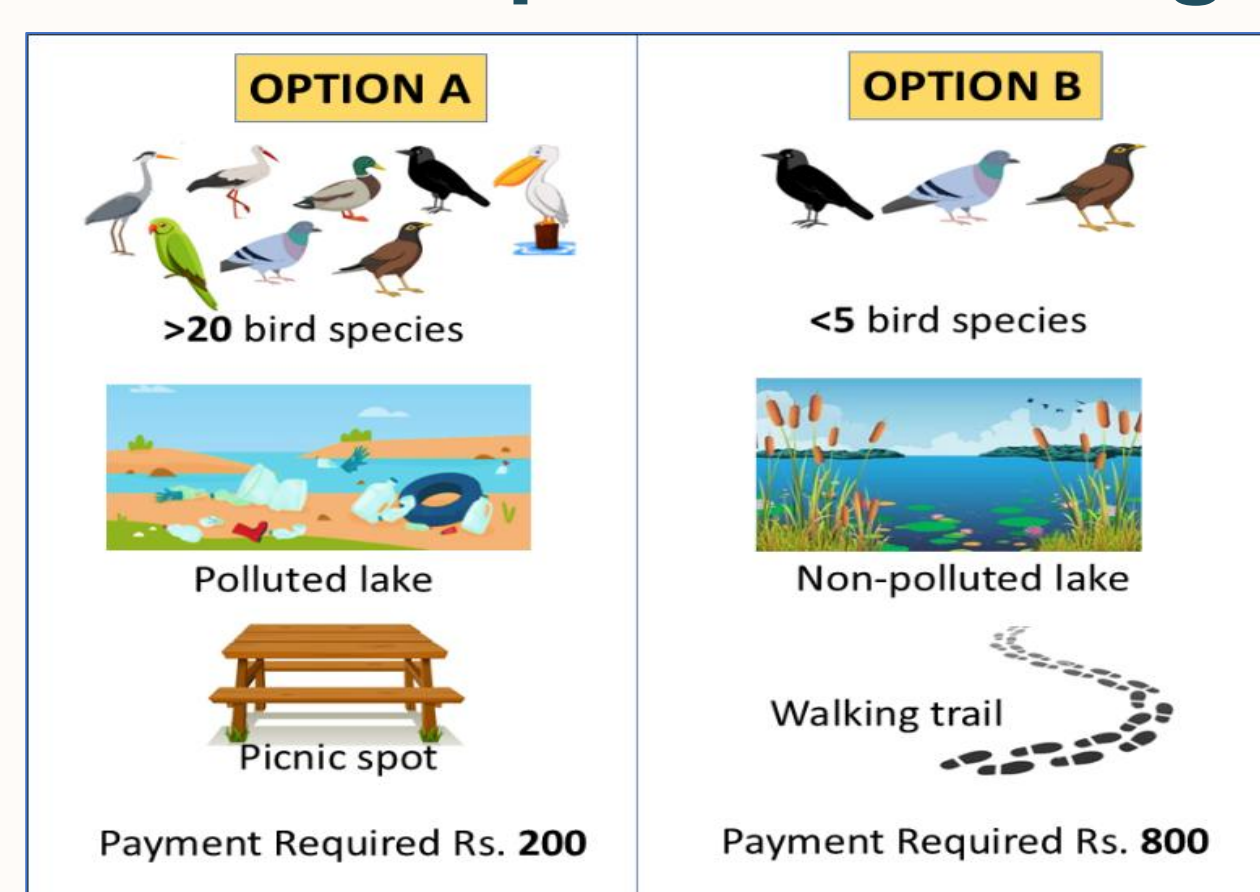


Fig. 1 Share of 354 respondents who had seen each bird in the past year and who could name it. Rarity from winter point counts.

- The median resident could name two of the ten. Recognition tracks commonness: Many saw rare wetland specialists, but few named them (Painted Stork: seen by 58%, named by 5%).
- Evidence suggests stated values for nature rise with familiarity (Belaire et al., 2015). Bird familiarity index (BFI): multiple correspondence analysis of the ten recognition flags, scaled from 0 to 1, split into quartiles.

## 2 Choice experiment design



- 354 households, seven tasks each (2,478 choices). Attributes: bird diversity (<5 or >20 species), lake cleanliness, amenities, annual payment (INR 200 to 1,000). Option C is the status quo.

## 3 Willingness to pay by attribute

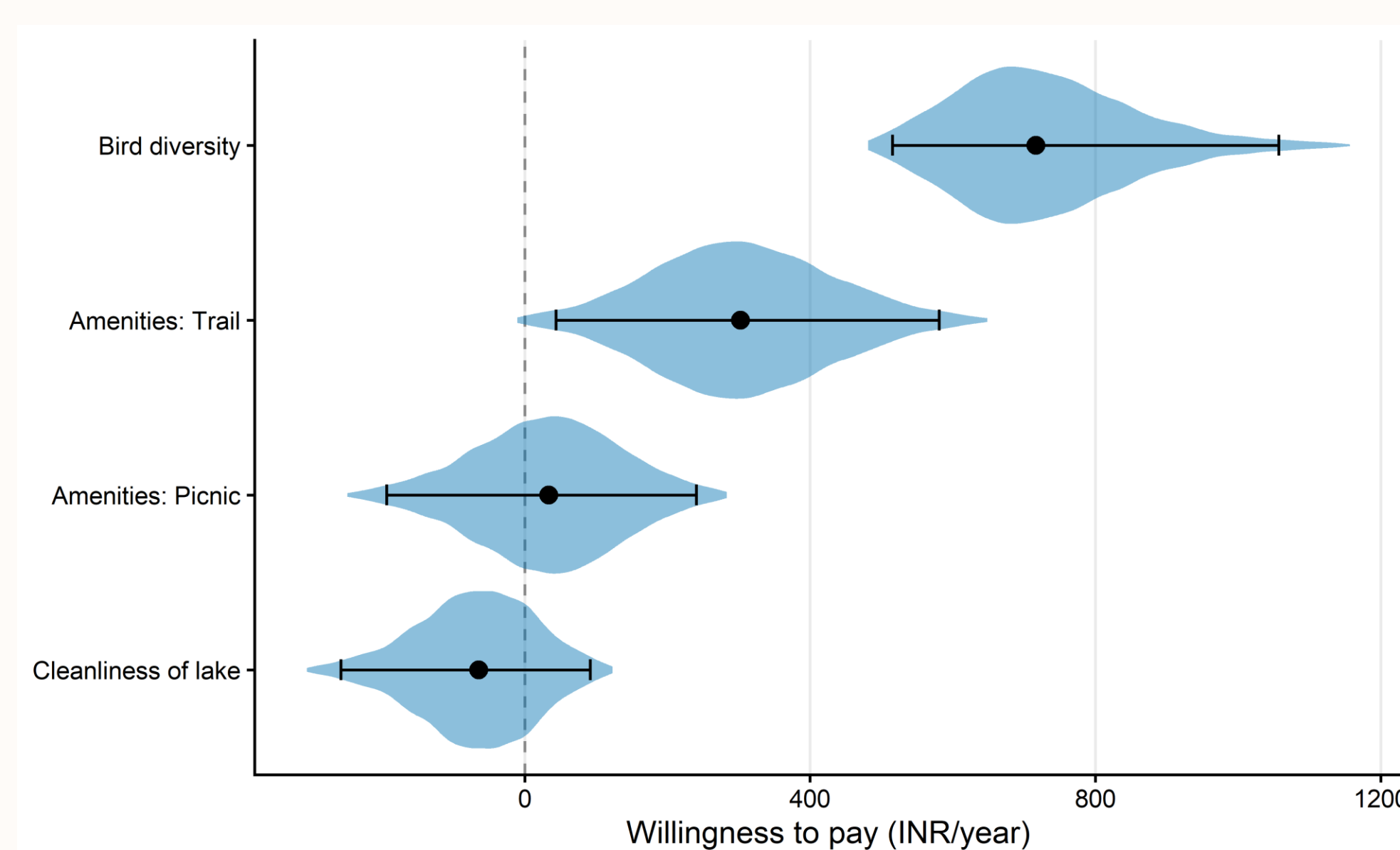


Fig. 2 Mean WTP per household per year with 95% confidence intervals (mixed logit, Krinsky-Robb).

INR 716

for high bird diversity

INR 302

for a walking trail

≈ 0

for a clean lake or picnic spot

- Residents strongly preferred any improvement to the degraded status quo, and bird diversity carried more than twice the value of any feature they could use directly.

## 4 WTP for bird diversity by familiarity class

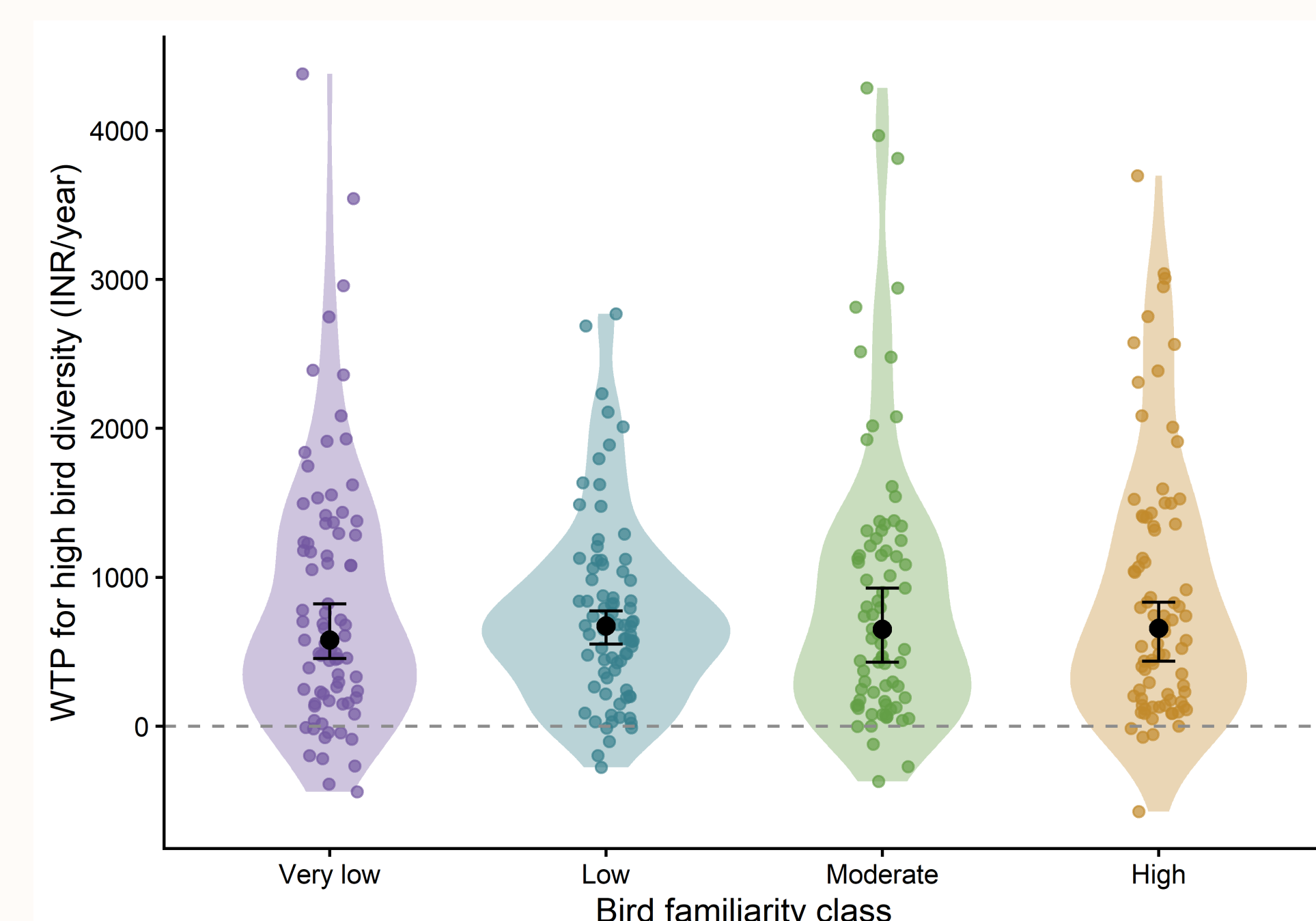


Fig. 3 Individual WTP for high bird diversity by bird familiarity class (BFI quartiles). Black dots: group medians with bootstrapped 95% CIs; n = 318 after 5% trimming.

- Median WTP is INR 580 to 670 in every familiarity class and the intervals overlap; the familiarity term in the interacted model is not significant.

## 5 WTP for bird diversity by household income

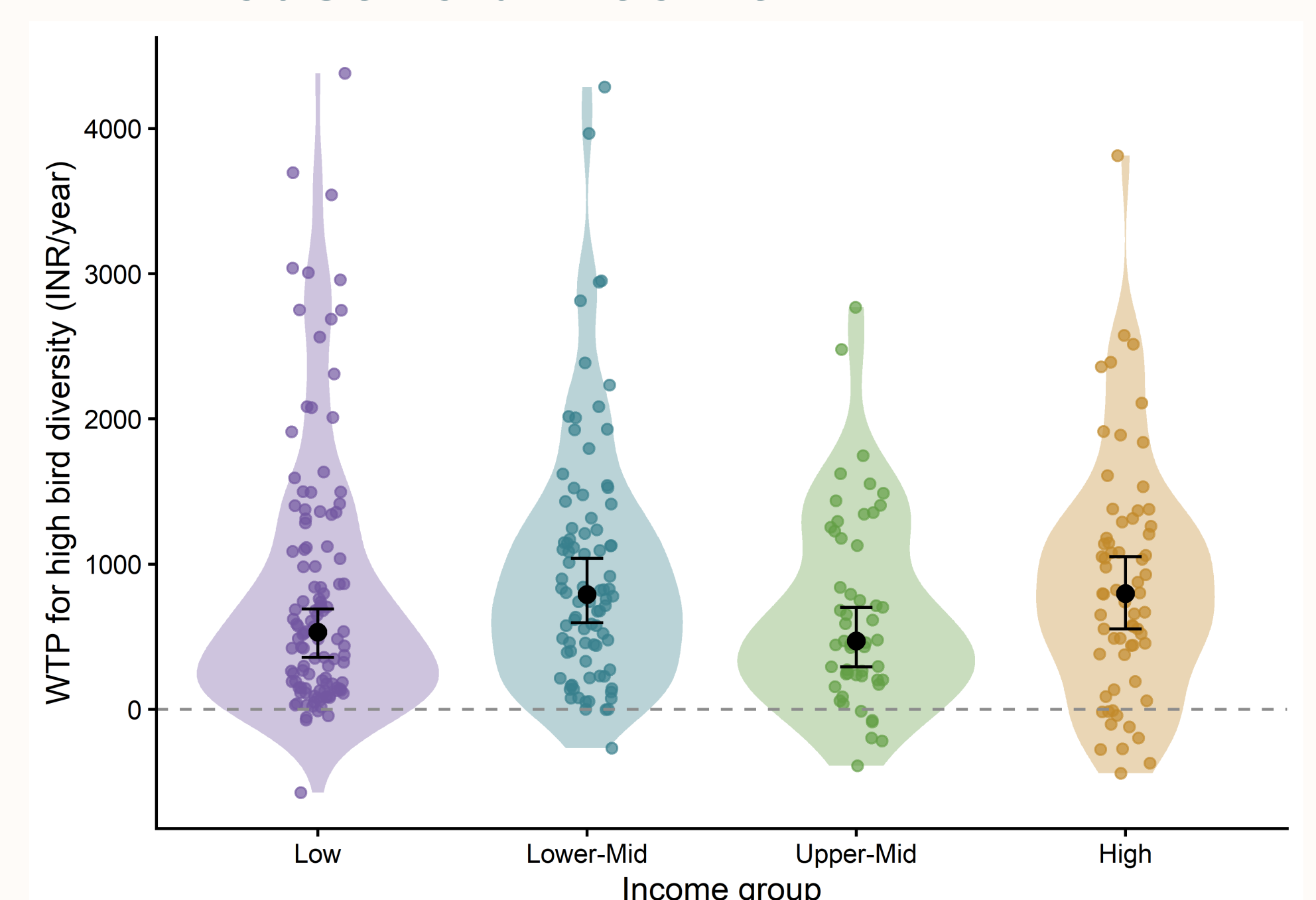


Fig. 4 Individual WTP for high bird diversity by monthly household income group; same conventions as Fig. 3.

- Support for any improvement over the status quo rises with income ( $p < 0.01$ ), but the value placed on bird diversity itself is flat across income groups.
- Visible biodiversity did not behave like a luxury good: income shapes who contributes, not how much nature is worth.



## 6 Implications for planning and finance

- Bird habitat sits at the centre of lake rejuvenation and should be asked for publicly; awareness is not a precondition for support.
- Who values and who can pay are separate questions: public or progressive financing fits better than a flat household levy.

## Conclusions

- Residents see the birds, cannot name most of them, and pay for them anyway.
- The value of bird diversity is a shared public value, not a specialist taste or a marker of affluence.
- Visible biodiversity earns its place in urban blue-green infrastructure on its own merits.

