

CHARACTER DISPLACEMENT AND GRADUAL CHANGE IN PLUMAGE TRAIT COMPLEX OF THE PIED AND COLLARED FLYCATCHER

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Geographic variation in traits associated with fitness plays a key role in fundamental evolutionary processes such as local adaptation, population differentiation and ultimately, speciation. While patterns of geographic variation have been extensively documented, the selective forces causing variation are still hardly known. We studied geographic variation in the plumage traits of the pied flycatcher (*Ficedula hypoleuca*) and compared it to the sibling species collared flycatcher (*F. albicollis*). We found that all major visual plumage traits of the pied flycatcher have strongly diverged from the socially dominant collared flycatcher in the area of secondary contact. The conspicuousness of the plumage of the pied flycatcher increases with distance to the secondary contact zone, which suggests a cline maintained by gene flow. The different plumage traits are strongly or moderately correlated with each other, indicating that they evolve at least to some extent together. The pied and collared flycatchers are thus an exciting example of plumage patterns diverging in a relatively short time to two species that differ in appearance. The ongoing process of divergence in sympatry and convergence in allopatry in these birds provides a window to the evolution of highly divergent avian plumage patterns.

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