



# XVII Simposio Argentino de Paleobotánica y Palinología

*“Hacia nuevos desafíos”*

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**FAUNIPOLLENITES, A JUNIOR SYNONYM OF PROTOHAPLOXYPINUS TAXONOMIC CONFIRMATION BASED ON CONFOCAL LASER SCANNING MICROSCOPY AND SCANNING ELECTRON MICROSCOPY.**

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The genus *Faunipollenites* Bharadwaj was treated as a junior synonym of *Protohaploxypinus* Samoilovich *emend.* Morbey, because both include haploxyylonoid pollen grains with more than four taenia. Controversies regarding the synonymization still persist especially in India. A morphologic analysis of specimens attributed to *Faunipollenites* from India was done to assess their taxonomic assignment. Specimens from two sets of residues, one subjected to HCl, HF, and Nitric acid for 2 h, and another with Nitric acid for 24-48 h and KOH, were evaluated to see the effects on main morphologic features, such as sacchi construction, central body, folds, striations and size, under LM, CLSM and SEM. Our observations revealed that specimens from first set of samples displayed a central body with a distinct outline, whilst the other set yielded specimens of same species with an indistinct central body outline. The CLSM and SEM analysis of specimens from both sets of residues revealed a distinct central body outline, but certain forms displayed an indistinct central body outline without folds irrespective of the nature of treatment. Therefore, features such as haploxyylonoid saccus construction and taeniae/striations common to all the species analyzed are considered generic characters, whereas the other features such as the central body outline, presence/absence of folds and size are for the specific level. Hence, we affirm the taxonomic status of *Faunipollenites* as junior synonym of *Protohaploxypinus* and negate the further usage of this genus. This taxonomic confirmation enables to refine intracontinental correlation and contribute to the understanding of its palaeobiogeographic distribution.

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