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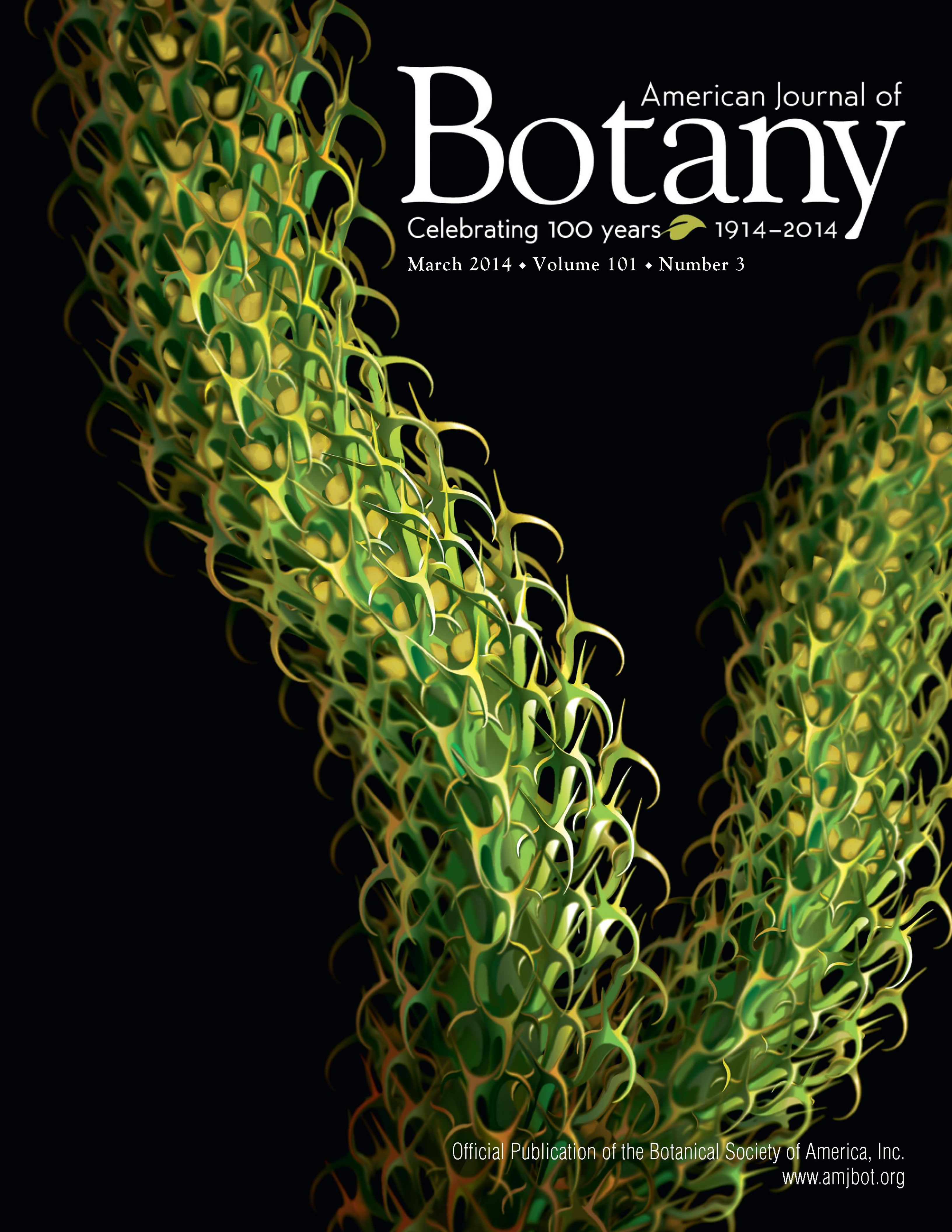

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Cover Illustration: Digital reconstruction of the centipede clubmoss, *Leclercqia scolopendra* sp. nov. (Protolepidodendraceae: Lycopsida) from the Middle Devonian Chilliwack flora of Washington state. Displaying a remarkable degree of morphological conservatism for over 400 million years, homosporous lycopsids provide a unique system for interpreting trends in early vascular plant form. In Benca et al.—Applying morphometrics to early land plant systematics: A new *Leclercqia* (Lycopsida) species from Washington State, USA, pp. 510–520 in this issue, the new Devonian lycopsid *Leclercqia scolopendra* was distinguished from pre-existing members of the genus through parallel morphometric analyses of extant and extinct taxa. In particular, variation in vegetative morphology within and between living *Lycopodium* and *Spinulum* (a segregate of *Lycopodium* sensu lato) was used to assess the systematic importance of previously overlooked fossil leaf traits in Leclercqia. These traits expand the range of diagnostic features in fragmentary *Leclercqia* axes, increasing taxonomic precision and relevance of disarticulated Devonian material. Applied to this nearly pan-global genus, morphometric analyses showed promise as a powerful, nondestructive approach for evaluating degrees of variation in widely distributed early land plants. Vectored illustration: Jeff Benca.

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Abbreviations

Miscellaneous: AFLP, amplified fragment length polymorphisms; a.s.l., above sea level; bp, base pair; BP, before present; BSA, bovine serum albumin; cpDNA, chloroplast DNA; CTAB, hexadecyltrimethylammonium bromide; cv., cultivar; ddH$_2$O, double-distilled water; dNTP, deoxyribonucleotide E.C., Enzyme Commission; EDTA, ethylene diamine tetra-acetic acid; f. sp., forma specialis; indels, insertions and deletions; ITS, internal transcribed spacer; LM, light microscopy; mya, million years ago; PAGE, polyacrylamide gel electrophoresis; PCR, polymerase chain reaction; RAPD, random amplified polymorphic dimorphism; SDS, sodium dodecyl sulfate; SEM, scanning electron microscopy; s.l., sensu lato; s.s., sensu stricto; subsp., subspecies; TEM, transmission electron microscopy

Genetics: A, mean number of alleles per locus; D, mean genetic distance; CI, consistency index; F, fixation index; F_{IT}, total deviation from Hardy-Weinberg expectations; F_{ST}, genetic diversity among populations; F_{IS}, inbreeding within populations; G_{ST}, the proportion of genetic diversity among populations; H_e, Hardy–Weinberg expected heterozygosity; H_o, observed heterozygosity; MP, most parsimonious tree; n, individual chromosome number; Nm, mean number of migrants per generation; P_p, percentage of polymorphic loci; RI, retention index; x, base chromosome number

Statistics and math: ANOVA, analysis of variance; CV, coefficient of variation; df, degrees of freedom; N, number of individuals; p, probability; P, level of significance; PCA, principal components analysis; r, coefficient of correlation; SE, standard error; SD, standard deviation