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Reduced rates of sequence evolution of Y-linked satellite DNA in *Rumex* (*Polygonaceae*)

R. Navajas-Pérez¹, R. de la Herrán¹, M. Jamilena², R. Lozano², C. Ruiz Rejón¹, M. Ruiz Rejón¹ and M.A. Garrido-Ramos¹

¹Departamento de Genética, Facultad de Ciencias, Universidad de Granada, Campus de Fuentenueva s/n, 18071, Granada, Spain; ²Departamento de Biología Aplicada, Escuela Técnica Superior de Ingenieros Agrónomos, Universidad de Almería, Spain

One characteristic feature of the sex chromosomes is the accumulation of a sort of repetitive DNA sequences in the Y chromosomes. However little is known about how this occurs and about how the absence of recombination affects the subsequent evolutionary fate of the repetitive sequences in the Y chromosome. Here, we compare the evolutionary pathways leading to the accumulation of three families of satellite DNA sequences within the genomes of *Rumex acetosa* and *Rumex papillaris*, two dioecious plant species with a complex XX/X₁Y₁Y₂ sex-chromosome system. We have found that two of these families, one autosomic and one Y-linked, shared a common origin. Conversely, they are not related in origin with the third one, also located in the Y chromosomes. However, we have demonstrated that the two satellite DNA families in the Y chromosomes of these species have reduced rates of evolution and sequence homogenisation, in relation to those found for the satellite DNAs in autosome.