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Silicoflagellate *Dictyocha* Ehrenberg from the middle Holocene sediments in the coastal plain of Rio Grande do Sul, Brazil

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Resumen

Se ha realizado un análisis palinológico de sedimentos holocenos, limos de origen lagunar y limos arcillosos, de 4 testigos obtenidos en la Planicie Costera de Rio Grande do Sul (Brasil). En total, se han estudiado más de 70 muestras, algunas de las cuales se dataron con C^{14}. Particularmente, en 47 de ella se hallaron esqueletos del silicoflagelado *Dictyocha*. Estos microorganismos se encuentran frecuentemente en sedimentos lagunares formados durante la máxima trasgresión marina. En muchas de las muestras estudiadas los silicoflagelados están asociados con diatomeas marinas (*Coscinodiscus, Triceratium, Actinoptychus*) y estuarinas (*Paralia sulcata* y *Terpsinöe*). Además, también aparecen junto con polen y esporas de plantas vasculares, palinomorfos de algas de agua dulce, cistes de algas marinas (acritarcos y dinoflagelados) y microforaminíferos. Las muestras con abundancia de silicoflagelados muestran escaso contenido en polen y esporas, que en estos casos se relacionan principalmente con plantas halófitas y xerófitas. La escasez de polen y esporas en sedimentos de la fase transgresiva, y la notable abundancia de silicoflagelados, indica que estos son un instrumento útil para realizar reconstrucciones paleoambientales.

Palabras clave: Silicoflagelados, Palinomorfos, Holoceno, Sur de Brasil

Abstract

Holocene sediments represented by lagoonal silt and silty clay sediments from 4 cores in the Coastal Plain of Rio Grande do Sul, Brazil, were studied by palynological analyses. More than 70 samples were studied. Some samples were dated by the ^{14}C method. Silicoflagellate skeletons of *Dictyocha* were encountered in 47 samples. They were frequent in the lagoonal sediments formed during the marine transgression maximum. In many samples, silicoflagellates were associated with marine (*Coscinodiscus*, *Triceratium*, and *Actinoptychus*) and estuarine (*Paralia sulcata* and *Terpsinöe*) diatoms. They were associated with palynomorphs represented by vascular plant pollen and spores, freshwater algal palynomorphs, marine algal cysts of acritarchs and dinoflagellates, and microforaminifera. Pollen and spores from the samples enriched by silicoflagellates were relatively rare and mainly represented by halophilous and xerophilous plants. The scarce pollen and spores in the transgressive stage sediments and the notable frequency of silicoflagellates indicate on the importance of silicoflagellate skeletons as a reliable tool for palaeoenvironmental reconstructions.

Keywords: Silicoflagellates, Palynomorphs, Holocene, Southern Brazil