

MIDDLE JURASSIC FLORA FROM THE HOJEDK FORMATION OF TABAS, CENTRAL-EAST IRAN: BIOSTRATIGRAPHY AND PALAEOCLIMATE IMPLICATIONS

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Supplementary information

Localities	Alborz										Binalud		Kerman Basin		Tabas area								
	Zirab	Tazareh	Sangrud	Kamozd	Apun Valley	Tiar	Khatumbughah	Hiv	Baladeh/ Iva/ Ahan	Vaseqgah	Rudbarak	NE Shahrd	Djam	Ferzi	Golmakan	Shandiz	Bazehowz	Pabdana	Dashle-Khak	Hashooni mine	Babnizo	Mazino/ Kounehkati	Jafar Abad/
Authors	1, 2, 4, 6, 8, 11, 12, 13, 14, 15, 16, 20, 22, 23, 26	4, 6, 9, 10, 11, 14, 15,	11, 12, 14, 15, 16, 20	1, 6, 20	14, 20	23	5, 15, 16, 20	8, 12, 14, 15	19, 24, 25	5, 16	22	7, 11, 15, 20	3, 8, 15, 20	8, 15	17, 19	21	27	11, 18, 19	18, 19	18, 19	12, 15	26	26, 28
1- Kilpper (1964), 2- Kilpper (1968), 3- Alavi & Barale (1970), 4- Kilpper (1971), 5- Barnard & Miller (1976), 6- Sadovnikov (1976), 7- Corsin & Stampfli (1977), 8-Fakhr (1977), 9- Sadovnikov (1984), 10- Sadovnikov (1991), 11- Schweitzer & Kirchner (1995), 12- Schweitzer & Kirchner (1996), 13- Schweitzer <i>et al.</i> (1997), 14- Schweitzer & Kirchner (1998), 15- Schweitzer <i>et al.</i> (2000), 16- Schweitzer & Kirchner (2003), 17- Vaez-Javadi & Pour-Latifi (2004), 18- Vaez-Javadi & Mirzaei-Ataabadi (2006), 19- Vaez-Javadi (2008), 20- Schweitzer <i>et al.</i> (2009), 21- Saadatnejad <i>et al.</i> (2010), 22- Vaez-Javadi (2011), 23- Vaez-Javadi (2012), 24- Vaez-Javadi & Abbasi (2012), 25- Popa et al. (2012), 26- Vaez-Javadi (2014), 27- Vaez-Javadi & Allameh (2015), 28- Vaez-Javadi (2015)																							
Species	Age																						
<i>Equisetites beanii</i>	early	*	*		*	*				*				*	*	*	*			*	*	*	*
	Middle																						
	Jurassic																						
<i>Coniopteris hymenophylloides</i>	Middle	*			*	*			*		*	*	*	*	*	*	*	*			*	*	
	Jurassic																						
<i>Coniopteris murrayana</i>	Uppermost	*	*	*													*						
	Early- Middle																						
	Jurassic																						
<i>Klukia exilis</i>	Middle Jurassic		*		*				*					*	*	*	*	*		*		*	
<i>Sagenopteris nilssoniana</i>	Early- Middle Jurassic																				*	*	
<i>Ctenozamites cycadea</i>	Middle- Late Jurassic	*	*	*				*									*						
<i>Nilssonia bozorga</i>	Uppermost Early- Middle Jurassic			*			*										*	*			*	*	

Tab. 1a - Stratigraphic range and palaeogeographic distribution of the plant macrofossils in the Middle Jurassic throughout Iran.

Tab. 1b - Stratigraphic range and palaeogeographic distribution of the plant macrofossils in the Middle Jurassic throughout Iran.

<i>Nilssonia feriziensis</i>	Uppermost Early- Middle Jurassic								*	*	*	*	*		*	*	
<i>Nilssonia rigida</i>	Early Jurassic	*									*					*	
<i>Nilssonia macrophylla</i>	Middle Jurassic								*							*	*
<i>Nilssonia tazarensis</i>	Late Rhaetian-Middle Jurassic	*	*								*	*				*	*
<i>Nilssonia undulata</i>	Rhaetian-Middle Jurassic	*	*	*					*	*	*	*	*			*	*
<i>Otozamites harrisianus</i>	middle Early-Middle Jurassic	*		*		*					*						
<i>Ptilophyllum harrisianum</i>	Uppermost Early-Middle Jurassic				*		*			*	*					*	*
<i>Ptilophyllum pecten</i>	Middle Jurassic	*		*							*						
<i>Ptilophyllum vasekghahense</i>	Middle Jurassic	*					*				*						
<i>Ginkgoites huttonii</i>	Late Early-mid-Middle Jurassic						*			*						*	
<i>Ginkgoites parasingularis</i>	Early-Middle Jurassic	*	*			*		*		*	*			*		*	*
<i>Sphenobaiera longifolia</i>	Early-Middle Jurassic				*					*							*
<i>Elatides thomasi</i>	Middle Jurassic	*	*			*								*		*	*
<i>Podozamites distans</i>	Rhaetian-Middle Jurassic	*			*	*		*		*	*	*	*	*		*	*

Tab. 2 - Stratigraphic range and palaeo-geographic distribution of the studied taxa throughout the world.

Occurrence	Authors	Age	Species												
				<i>Annulariopsis simpsonii</i>	<i>Equisetites beani</i>	<i>Equisetites columnaris</i>	<i>Coniopteris hymenophylloides</i>	<i>Klukia exilis</i>	<i>Cladophlebis aktashensis</i>	<i>Sagenopteris nilssoniana</i>	<i>Nilssonia macrophylla</i>	<i>Nilssonia tenuicaulis</i>	<i>Nilssonia undulata</i>	<i>Ginkgoites huttonii</i>	<i>Podozamites distans</i>
Talbazar (New South Wales)	Walkom (1921), White (1981)	Jurassic					*								
Kavtha Harbour, Curio Bay (New Zealand)	Edwards (1934), Arber (1917)	Jurassic					*								
Montana, Oregon (U.S.A)	Ward (1900), Lapasha and Miller (1985)	M. Jurass- E. Cretaceous					*			*					
Höör, Palsjö (Scania, Sweden)	Nathorst (1878, 1886), Halle (1908), Ameyx (1919)	Rhaetian- E. Jurassic			*										*
Scoreby Sound (E Greenland)	Harris (1932)	E.-M. Jurassic											*		
Yorkshire (England)	Broughton (1829), Bunbury (1851), Zigno (1856), Phillips (1829, 1875), Seward (1898, 1900), Thomas (1912), Harris (1946, 1961, 1964, 1969, 1979), van Raeborski (1890, 1894)	Middle Jurassic	*	*	*	*	*	*	*			*	*	*	*
Poland	Raeborski (1890, 1894)	M. Jurassic					*	*							
Frankens (Germany)	Berger (1832), Pözl (1838), Braun (1843)	Rhaetian- M. Jurassic												*	*
Basin de la Loire (France)	Saporta (1872, 1891), Costin (1950)	Rhaetian- E. Jurassic					*								
Tur-Kyr (Turkmenistan)	Duan (1987)	Middle Jurassic			*										
Dahana-i-Tep, Karkar, Ishonsha Afghanistan	Seward (1912), Sibley (1940), Jacob & Shukla (1955), Benda (1964)	Middle Jurassic	*	*	*	*	*	*		*	*	*			*
Fergana E. Kazakhstan	Brick (1937, 1953)	Mesozoic		*		*	*	*	*						
Tkarchelian (Transcaucasia)	Pynda (1933), Belle (1967)	Middle Jurassic					*	*							
Kansu, Hupoh, Shensi, W. Hubei (China)	Sze (1933, 1949), Lee (1955), Wu et al. (1980)	E.-M. Jurassic					*	*	*			*			
Kamotka, Enba region (Dzungaria)	Thomas (1911), Pynda (1938), Sze (1952)	Jurassic		*			*	*				*		*	
Mongolia		Jurassic					*								
Quang-Nam, Hongay (Vietnam)	Vozenih-Serra & Franceschi (1999)	Rhaetian													*
Tyosen (Korea)	Kawasaki (1926)	E. Cretaceous					*					*			
Kuwashima (Japan)	Yokoyama (1890, 1906)	Jurassic					*								
Ishikawa (Daidō & Teofei Series) Japan	Kawasaki (1926), Ōishi (1940), Endo (1952)	M. Jurassic- E. Cretaceous					*	*				*			