and is regarded a close analogue to the contemporary reservoirs in the northern North Sea (Brent Group) and mid-Norwegian shelf (Fangst Group). Ammonites are common in Jameson Land and occur in numerous horizons and form the basis for the Middle Jurassic Standard zonation for the Boreal Province (Callomon, 1993). Compared to Jameson Land, the Jurassic in the Traill Ø area is relatively poorly exposed. Localities are few and scattered, and the sediments are heavily affected by intense faulting and intrusion of basaltic dikes and sills. In earlier studies attention has therefore mainly been towards the succession in Jameson Land.

Cranocephalites borealis, *C. pompeckji*, *Arctocephalites arcticus*, *A. greenlandicus*, *Cadoceras apertum* and *C. nordenskjoeldi* Zones are recognized in the Traill Ø area and allow a firm correlation of several levels to the biostratigraphically well-dated succession in Jameson Land. The Middle Jurassic succession is differentiated litostratographically into the non-marine, coarse grained fluvial deposits and muddy interfluvial/lake deposits of the Bristol Elv Formation, overlain by the shallow marine ammonite-bearing sandstones of the Pelion Formation and of-shore dark silty shales of the Fossilbjerget Formation. It is overlain by upper Middle–Upper Jurassic sandstones of the Olympen Formation and shales of the Bernbjerg Formation. The succession thus closely resembles the development described from Jameson Land, where the Middle–Upper Jurassic forms an overall transgressive-regressive cycle (e.g. Surlyk, 1991). The Bristol Elv Formation was deposited during lowstand presumably in incised valleys. It is overlain by the Pelion Formation. The base of this formation lies in the *Cranocephalites borealis* Zone from the southern Jameson Land to northern Traill Ø indicating an almost isochronous flooding of the basin. During transgression sand-deposition was gradually replaced by shale-deposition towards the north. The boundary between the Pelion Formation and Fossilbjerget Formation is therefore strongly diachronous. The shallow marine sandstones in Traill Ø hence pass upwards into the fine-grained Fossilbjerget Formation. This indicates a complete drowning of the sand-dominated depositional systems of the Pelion Formation in the Traill Ø area in Callovian with maximum transgression occuring in early Middle Callovian.

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STRATIGRAPHIC AND PALAEOGEOGRAPHIC SIGNIFICANCE OF PELAGIC MICROFACIES IN THE MIDDLE TO UPPER JURASSIC OF THE PIENINY KLIPPEN BELT, CARPATHIANS

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Pieniny Klippen Belt represents the Carpathian fold belt, about 600 km long, stretching from vicinity of Vienna (Austria) through western Slovakia, southern Poland and eastern Slovakia, up to Transcarpathian Ukraine and Romania. This belt corresponds to a major suture zone between the Outer and Inner (Central) Carpathians. The major part of the belt consists of rock successions which were formed in the Pieniny Klippen Basin, from the Czorsztyn Ridge and its southern slope in the North, to Central Furrow in the South (Birkenmajer 1986).

The pelagic deposits of the Czorsztyn Ridge and its southern slope developed as ammonitico-rosso type limestones, radiolarites and micritic limestones of the maiolica type of latest Bajocian to Tithonian age have been studied in particular sections of the Pieniny Klippen Belt from Poland through eastern Slovakia to Ukraine. The study revealed everywhere similar microfacies succession, and similar ages of the particular microfacies types as based on biostratigraphical (mostly ammonites) datings (see also Wierzbowski & al. 1999): the filament microfacies is the oldest and it ranges from latest Bajocian to Callovian, the *Globuligerina* microfacies replaced laterally by radiolarian microfacies are still younger (latest Callovian/earliest Oxfordian to latest Oxfordian/earliest Kimmeridgian), and these are followed by *Sacoccoma* microfacies replaced locally by the radiolarian microfacies, *Globochaete* microfacies, or *Globuligerina* microfacies (Kimmeridgian-Early Tithonian), and the calpionellid microfacies (Late Tithonian).

The indicated well biostratigraphically documented microfacies succession can be treated as indicative of fairly uniform palaeogeographic zone of the Pieniny Klippen Basin, one of the external Jurassic basins in the Carpathians. Similar microfacies types are known to occur in different basins of the Tethys, their succession and/or ages, however, are sometimes different from described herein. The diversified microfacies pattern can be used thus as an indicator for recognition of particular palaeogeographic zones in the Tethys.

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PALAEOGEOGRAPHIC EVOLUTION OF JURASSIC NORTHEAST IBERIAN BASINS IN RELATION TO TRANSGRESSIVE-REGRESSIVE SEDIMENTARY CYCLES

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Jurassic deposits crop out widely across the northeast Iberian Peninsula. A detailed stratigraphic, sequence-correlation study of Jurassic successions has been carried out in the main sedimentary basins of NE Iberia, i.e. Asturias, Basque-Cantabrian Basin, and Iberian Basin, based on the identification of transgressive-regressive cycles. Basic data come from continuous field exposures supplemented by selected well-log data from intermediate, underrepresented areas.

General development and palaeogeographic evolution of northeast Iberian basins were mainly controlled by tectonic factors. Early opening of sedimentary basins at the Triassic–Jurassic transition was related to extensional tectonic movements leading to the westwards extension (opening) of the Tethys. In contrast, extensional tectonic movements during uppermost Jurassic-Lower Cretaceous was linked to the opening of Central Atlantic and the Bay of Biscay. Jurassic sedimentation were primarily controlled by normal faults, block tectonics being responsible for lateral and time variations of facies and thickness. Additionally, widespread transgressive and regressive events recorded across the basins, suggest a certain degree of eustatic control on stratigraphic discontinuities and facies distribution. This combination of factors resulted in a succession of deepening and shallowing cycles, which greatly influenced the sedimentary record of the basins.