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Compressed remains of plants preserved in the shales overlying Indiana Coal No. 5, in the Dugger Formation, and No. 7, in the Shelburn Formation were collected from the Hawthorn and Dugger pits of the Peabody Coal Company. In the Hawthorn pit shale above both Coals No. 5 and No. 7 were sampled and in the Dugger pit fossils were collected only above the No. 7 coal. Plant fossils were abundant and most frequently collected from the shale units 20-25 feet above the No. 5 coal and 0-3 feet above the No. 7 coal. Several hundred specimens were collected to provide a sufficient sample to establish both the taxonomic affinities and relative abundance of the plant fossils at each locality Sigillaria cumulata Weiss, Linopteris muensteri Potonie, and Nuropteris rarinervis Bunbury are unique to the shale above Coal No. 5. Sigillaria cumulata has not been described previously from the Illinois coal basin. Lycopods were common at all the localities. Above Coal No. 5 the Neuropterid ferns and Cordaites were more abundant than above Coal No. 7 and only a few Calamitean remains were found. Dispersed seeds of seed ferns were common above Coal No. 5. In a comparison of the two localities for No. 7 coal it was noticed that Pecopterid and Sphenopterid fern foliage are more common at the Dugger pit while Mariopterid and Alethopterid seed fern foliage are more common at the Hawthorn pit. Nuropterids are conspicuously absent above the No. 7 coal at the Dugger pit. As a result of this preliminary work the fossil plants common to the shales above the Indiana Coals No. 5 and 7 are beginning to be characterized and the lateral variation of these fossils above Coal No. 7 understood.

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