Endophytic fungi have been creating a considerable interest and curiosity among researchers since past three decades globally, owing to their recognition as an inexhaustible source of structurally and biologically novel compounds, alternative source of metabolites functionally identical to plant produced metabolites and their ability to impart resistance in host plants against various biotic and abiotic stresses. In this review, we have earnestly attempted to compile a vast array of endophytic fungi assemblages harbored inside Indian medicinal plants which have been reported during last decade from India.