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Zoogeographical aspects of decapod crustacea in the Indian River region of Florida.

Zoogeographically, the central east coast of Florida is considered a transitional zone between the warm-temperate Carolinian faunal province to the north and the tropical Antillean faunal province to the south. This zone, approximately 125 miles long, has its southern boundary near Jupiter Inlet, and its northern limit in the vicinity of Cape Canaveral. A major geophysical feature in this area is the Indian River, a shallow, euryhaline/eurythermal body of water separated from the Atlantic Ocean by a series of long, narrow barrier islands, but connected with it through several inlets along its length. The river originates in fresh water marshes of the St. John's River and extends the entire length of the transition zone to its mouth at Jupiter Inlet. Because of both freshwater runoff and oceanic water input the decapod crustacean fauna in the Indian River consists of freshwater, estuarine and strictly marine forms. A one year survey of this fauna in the river and adjacent shallow Atlantic waters produced over 150 species, roughly divided into three groups: 1) species primarily tropical in affinity and occurring most abundantly in the Antillean province; 2) species of both tropical and warm-temperate affinity, occurring in both the Antillean and Carolinian faunal provinces; and 3) species whose range extends beyond both the Carolinian province northward, and the Antillean province southward. The majority of species collected in the Indian River region are primarily Antillean in their faunal affinities, but seem to be those tropical and subtropical forms which are able to withstand the extreme fluctuations of temperature (over 15 C°) and salinity (over 25%) which occur in the Indian River throughout the year.