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Organochlorine Pesticide Levels in Birds from Northwest Costa Rica

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Oral Presentation 1.1

**ORGANOCHLORINE PESTICIDE LEVELS IN BIRDS FROM
NORTHWEST COSTA RICA**

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Organochlorine pesticide contamination has been shown to occur in locations previously thought to be untouched by humans (Dulzen 1991). This is due in part to the ability for organochlorine pesticides to travel long distances through the atmosphere (Standley and Sweeney 1995). In Costa Rica, pesticide use occurs on the Caribbean side of the mountain range that divides the country longitudinally, therefore little pesticides should be found on the Pacific side of the mountain range where very small amounts of pesticides are used. We looked at the frequency and amount of pesticide contamination in birds from three locations in Northwest Costa Rica, running from the Caribbean side to the Pacific side of the country. Two of the sites were used in order to compare our data with those obtained by Standley and Sweeney (1995) on stream mayfly larvae in similar locations. We found that the frequency of contamination at two of the sites corresponded to those found by Standley and Sweeney (1995), such that the highest frequency of contamination occurred at the site closest to agricultural areas. Biomagnification is also a documented phenomenon where pesticides accumulate in higher levels in organisms at higher trophic levels. We did not however find this to be the case in our data, for the insectivorous birds that we sampled had pesticide levels comparable to those found by Standley and Sweeney (1995) in invertebrates. We conclude that although more pesticides were found at locations closer to agricultural sites, like expected, the phenomenon of pesticide accumulation in the tissues of avifauna is much more complex than originally anticipated.