

# Costs of Single-use Plastics Pollution in Florida

## **Preemption of single-use plastics regulation is hurting Florida**

To compete for tourist dollars, Florida Legislature must allow regulation of the single-use plastics that make up most of the litter on Florida's beaches and waterways.

## **Plastics pollution is a drag on Florida's economy**

Tourism provides Florida with \$112 billion annually and supports one in six jobs<sup>1</sup>. Plastics pollution is already costing Florida significant income. A NOAA study of tourist attitudes shows that tourism would be 8.1% higher (an extra ~\$7 billion/year in Florida), if plastic trash were eliminated from waterways and beaches, and 16-26% lower (a loss of ~\$27 billion/year in Florida) if plastic trash were to double<sup>2</sup>.

Destinations that compete with Florida, such as Jamaica and Bahamas, as well as beach communities in Texas, South Carolina, and California, have recently banned single-use plastics. Our direct competitors have found this strategy effective in protecting their tourist economies and attracting high-value visitors.

The single-use plastics problem compounds. Visitors use a disproportionate quantity of single-use plastics and generate twice as much plastics pollution as residents<sup>3</sup>. Increasing tourism increases pollution in a negative feedback loop that discourages visitors and holds Florida's economy below its potential.

## **Harms from microplastics**

Plastic trash in the water breaks down into microplastics that work their way up the food chain<sup>4</sup> posing a significant health hazard to humans and the environment. Most concerning, microplastics were recently detected in human placenta<sup>5</sup>. This finding raises the disturbing likelihood that microplastics are inflicting the same harm on human fetuses as seen in other creatures. In marine organisms where microplastics have been studied most extensively, microplastics stunt growth<sup>6</sup>, reduce energy reserves<sup>7</sup>, and disrupt normal endocrine function<sup>8</sup>.

## **Recycling doesn't solve the problem**

Recycling does not and cannot prevent plastics pollution because recycling is inefficient at best and fails to capture the litter stream that produces the greatest harm. Currently only 7% of plastic bottles are recycled in Florida<sup>9</sup>. Studies show that only 10% of all plastics can be recycled economically<sup>10</sup> and the international market for recyclable plastics has dried up<sup>11</sup>. Even minimally effective recycling and cleanup programs are increasingly expensive.

## **Allow local regulation of single-use plastics**

Florida's legislative preemption prevents communities from enacting laws that control single-use plastic, hampering the state's ability to compete for domestic and international tourist dollars. The ban must be repealed to allow Florida to compete for domestic and international tourists, and to protect the health of unborn children and the ecosystem we depend on.

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<sup>1</sup> Florida Ocean Alliance. Securing Florida's Blue Economy Strategic Policy Plan for Florida's Oceans and Coasts June 2020 [https://www.floridaoceanalliance.org/wp-content/uploads/2021/03/FOA-Strategic-Policy-Plan\\_20210304.pdf](https://www.floridaoceanalliance.org/wp-content/uploads/2021/03/FOA-Strategic-Policy-Plan_20210304.pdf)

<sup>2</sup> The Economic Impacts of Marine Debris on Tourism-Dependent Communities. Marine Debris Program. National Oceanic and Atmospheric Administration. July 2019. <https://marinedebris.noaa.gov/research/economic-impacts-marine-debris-tourism-dependent-communities>

<sup>3</sup> Schönberger, H., Martos, G., & Styles, D. (2016, February 29). Best environmental management practice in the tourism sector: Learning from frontrunners. Publications Office of the European Union. <https://op.europa.eu/en/publication-detail/-/publication/731280a0-df78-11e5-8fea-01aa75ed71a1/language-en>.

<sup>4</sup> Athey, S. N., Albotra, S. D., Gordon, C. A., Monteleone, B., Seaton, P., Andrady, A. L., Taylor, A. R. and Brander, S. M. (2020). Trophic transfer of microplastics in an estuarine food chain and the effects of a sorbed legacy pollutant. *Limnology and Oceanography Letters*, 5, 154-162. <https://aslopubs.onlinelibrary.wiley.com/doi/full/10.1002/lol2.10130>

<sup>5</sup> Ragusa, A., Svelato, A., Santacroce, C., Catalano, P., Notarstefano, V., Carnevali, O., Papa, F., Rongioletti, M. C. A., Baiocco, F., Draghi, S., D'Amore, E., Rinaldo, D., Matta, M. and Giorgini, E. (2021). Plasticenta: First evidence of microplastics in human placenta. *Environ Int*, 146, 1. <https://www.sciencedirect.com/science/article/pii/S0160412020322297?via%3Dihub>

<sup>6</sup> Lo, H. K. A., and K. Y. K. Chan. 2018. Negative effects of microplastic exposure on growth and development of *Crepidula onyx*. *Environ. Pollut.* 233: 588–595. doi:10.1016/j.envpol.2017.10.095

<sup>7</sup> Wright, S. L., D. Rowe, R. C. Thompson, and T. S. Galloway. 2013. Microplastic ingestion decreases energy reserves in marine worms. *Curr. Biol.* 23: 1031–1033. doi:10.1016/j.cub.2013.10.068

<sup>8</sup> Rochman, C. M., T. Kurobe, I. Flores, and S. J. Teh. 2014. Early warning signs of endocrine disruption in adult fish from the ingestion of polyethylene with and without sorbed chemical pollutants from the marine environment. *Sci. Total Environ.* 493: 656–661. doi:10.1016/J.SCITOTENV.2014.06.051

<sup>9</sup> Florida Department of Environmental Protection. 2020 Minimum 4 of 8 - Aluminum and Steel Cans, Plastic Bottles 2020. <https://floridadep.gov/waste/waste-reduction/content/2020-solid-waste-management-report>

<sup>10</sup> Mangual, R. A., Gelinas, N., Weisburd, D., & Husock, H. (2020, June 23). A cost-benefit analysis of recycling in the United States. Manhattan Institute. <https://www.manhattan-institute.org/recycling-cost-benefit-analysis>.

<sup>11</sup> <https://news.sky.com/story/malaysia-sends-plastic-waste-back-to-uk-insisting-it-is-not-worlds-rubbish-dump-11913156>  
<https://www.greenindustries.sa.gov.au/chinas-new-policy-on-waste-and-recycling>  
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