

















- America,” *BMC Public Health*, vol. 19, no. 1, pp. 1–15, 2019, doi: 10.1186/s12889-019-6879-x.
- [49] D. López and J. Luyando, “The effects of oil pollution in the development of Ejidal Communities: the case of the San Juan river basin (Nuevo León, Mexico),” *Investig. Desarro.*, vol. 26, no. 1, pp. 92–124, 2018, doi: 10.14482/indes.26.1.9918.
- [50] L. Cai, L. Yan, J. Ni, and C. Wang, “Assessment of ecological vulnerability under oil spill stress,” *Sustain.*, vol. 7, no. 10, pp. 13073–13084, 2015, doi: 10.3390/su71013073.
- [51] J. Araujo, F. Yegres, A. Angel, B. Depool, and Y. Rojas, “Biocatalizadores fúngicos hidrocarbonoclasticos del genero *Aspergillus* para la descontaminación de agua con Hidrocarburos Policíclicos Aromáticos (HPAs),” *Rev. Cuba. Química*, vol. 28, no. 2, pp. 703–735, 2016.
- [52] T. Nordam, S. Lofthus, and O. G. Brakstad, “Modelling biodegradation of crude oil components at low temperatures,” *Chemosphere*, vol. 254, pp. 0–3, 2020, doi: 10.1016/j.chemosphere.2020.126836.
- [53] Ö. Özden, N. Erkan, M. Kaplan, and F. S. Karakulak, “Toxic Metals and Omega-3 Fatty Acids of Bluefin Tuna from Aquaculture: Health Risk and Benefits,” *Expo. Heal.*, vol. 12, no. 1, pp. 9–18, 2020, doi: 10.1007/s12403-018-0279-9.
- [54] J. Navarro, A. Aguilar, and J. López, “Aspectos bioquímicos y genéticos de la tolerancia y acumulación de metales pesados en plantas,” *Ecosistemas*, vol. 16, no. 2, pp. 1–9, 2007, doi: 10.7818/re.2014.16-2.00.
- [55] M. San Sebastián, B. Armstrong, J. A. Córdoba, and C. Stephens, “Exposures and cancer incidence near oil fields in the Amazon basin of Ecuador,” *Occup. Environ. Med.*, vol. 58, no. 8, pp. 517–522, 2001, doi: 10.1136/oem.58.8.517.
- [56] L. Londoño, P. Londoño, and F. Muñoz, “Los Riesgos De Los Metales Pesados En La Salud Humana Y Animal,” *Biotechnología en el Sect. Agropecu. y Agroindustrial*, vol. 14, no. 2, p. 145, 2016, doi: 10.18684/bsaa(14)145-153.
- [57] M. Silva, S. Loureiro, M. Reis, M. Da Rosa, and J. Nilin, “Toxicity of a mixture of monoaromatic hydrocarbons (BTX) to a tropical marine microcrustacean,” *Mar. Pollut. Bull.*, vol. 156, no. April, p. 111272, 2020, doi: 10.1016/j.marpolbul.2020.111272.
- [58] P. Lopes, A. Northcross, M. Gomes, and R. Franco, “The crude oil spill on the Brazilian coast in 2019: the question of public health emergency,” 2020, doi: 10.1590/0102-311X00231019.
- [59] C. O’Callaghan, M. Orta, and M. Kogevinas, “Health effects of non-occupational exposure to oil extraction,” *Environ. Heal. A Glob. Access Sci. Source*, vol. 15, no. 1, pp. 1–4, 2016, doi: 10.1186/s12940-016-0140-1.
- [60] F. Fiorucci *et al.*, “Seasonal landslide mapping and estimation of landslide mobilization rates using aerial and satellite images,” *Geomorphology*, vol. 129, no. 1–2, pp. 59–70, 2011, doi: 10.1016/j.geomorph.2011.01.013.
- [61] W. M. Abdulwahid and B. Pradhan, “Landslide vulnerability and risk assessment for multi-hazard scenarios using airborne laser scanning data (LiDAR),” *Landslides*, vol. 14, no. 3, pp. 1057–1076, 2017, doi: 10.1007/s10346-016-0744-0.
- [62] F. C. Dai, C. F. Lee, and Y. Y. Ngai, “Landslide risk assessment and management: An overview,” *Eng. Geol.*, vol. 64, no. 1, pp. 65–87, 2002, doi: 10.1016/S0013-7952(01)00093-X.
- [63] T. Toulkeridis *et al.*, “Causes and consequences of the sinkhole at El Trébol of Quito, Ecuador - Implications for economic damage and risk assessment,” *Nat. Hazards Earth Syst. Sci.*, vol. 16, no. 9, pp. 2031–2041, 2016, doi: 10.5194/nhess-16-2031-2016.
- [64] A. V Vaca *et al.*, “Characterization of Fine-grained Material Ejected by the Cotopaxi Volcano Employing X-ray Diffraction and Electron Diffraction Scattering Techniques,” *Biol. Med.*, no. August 2015, pp. 2015–2017, 2016, doi: 10.4172/0974-8369.1000280.
- [65] F. Rodriguez and T. Toulkeridis, “Economic risk assessment of Cotopaxi volcano , Ecuador , in case of a future lahar emplacement,” *Nat. Hazards*, 2016, doi: 10.1007/s11069-016-2589-1.
- [66] J. Celorio, J. García, A. Guerra, A. Barragan, and T. T. Toulkeridis, “Análisis de la Vulnerabilidad por Tsunamis en Crucita, Ecuador,” *Rev. Ciencias Segur. y Def.*, vol. III, no. 1, pp. 57–102, 2018.
- [67] T. Toulkeridis, E. Tamayo, D. Simón-baile, D. F. Reyes-yunga, M. Viera-torres, and M. Heredia, “Cambio climático según los académicos Ecuatorianos -Percepciones Versus Hechos,” *La granja*, vol. 31, no. 1, pp. 21–46, 2020, doi: 10.17163/lgr.n31.2020.02.
- [68] F. Mato and T. Toulkeridis, “The Missing Link in El Niño’s Phenomenon Generation,” *Sci. Tsunami Hazards*, vol. 36, no. 3, pp. 128–144, 2017.