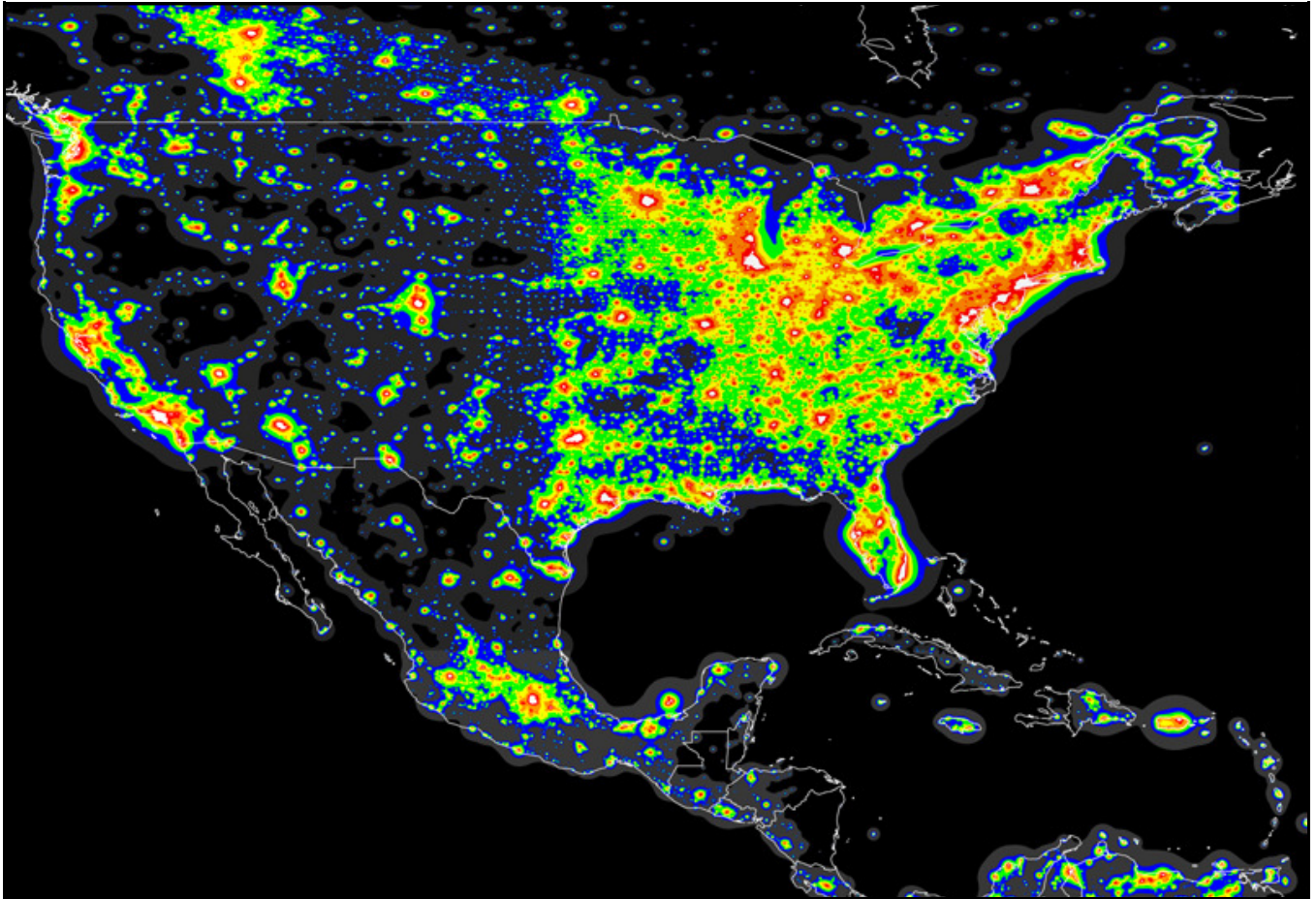


North America Light Pollution Map



Credit: P. Cinzano, F. Falchi (University of Padova), C. D. Elvidge (NOAA National Geophysical Data Center, Boulder). Copyright Royal Astronomical Society. Reproduced from the Monthly Notices of the RAS by permission of Blackwell Science. Colours correspond to ratios between the artificial sky brightness and the natural sky brightness of: <0.01 (black), 0.01-0.11 (dark-gray), 0.11-0.33 (blue), 0.33-1 (green), 1-3 (yellow), 3-9 (orange), 9-27 (red), <27 (white). Web Site: <http://www.lightpollution.it/worldatlas/pages/fig1.htm>

The above satellite map illustrates the levels of artificial light pollution produced by towns and cities throughout North America. The scale ranges from completely dark (black) through 7 levels to completely white (most polluted). The map represents the waste of a tremendous amount of energy pouring nightly into space from each town and city. (Old-fashioned light fixtures waste approximately 1/3 of the energy used!) It is estimated that over a billion dollars per year are wasted by inefficient and misused lighting in North America. The American federal government is now investigating light pollution with a view to curbing this waste and reducing energy consumption used for lighting.

Note that areas of the western U.S. and Mexico are virtually free of light pollution as are areas in northern Canada. However, there are Canadian cities which are as badly polluted as any other in North America or the world. (Compare Edmonton to Los Angeles.)

Of particular note to Albertans is the massive light pollution problem extending from the American border northward through central Alberta. Virtually no place exists in south central Alberta that is free from light pollution. This means that many Albertans have never experienced the breathtaking beauty and inspiration of a completely dark night sky!

This wasted light energy also represents a tremendous threat to flora and fauna, including humans, as it interferes with the natural nocturnal rhythms and functions of living things.

With the great public concern for the environment and the reduction of energy consumption and its waste, Albertans must upgrade lighting fixtures to conserve energy, reduce wasted energy and eliminate light pollution.

www.AlbertaDarkSky.ca

