Julie Ekstrom, a doctoral student at the Bren School of Environmental Science and Management at UC Santa Barbara, has put together and made publicly available a searchable dataset of federal and state statutes and regulations dealing with ocean and coastal resources in the California current ecosystem. In a paper in the journal Marine Policy (subscription required), Ekstrom describes the derivation of the database. In another paper in the same journal issue, she and a group of collaborators use text analysis to "create a graphical portrayal or 'seascape' of legal and agency involvement for the marine-related topic(s) under study."

This dataset (with some caveats) should be very useful to researchers and policymakers interested in ocean governance. I may be missing something, but I'm not yet persuaded of the value of performing quantitative analysis on the statutes and regulations it compiles. Certainly this dataset will be valuable to people trying to do legal gap analysis for ocean governance, especially for those who are not lawyers and do not have ready access to commercial legal databases. Just last week I talked with a graduate student at UC Davis who is working on a project to identify laws relevant to marine invasive species management in California. This database will save people doing that sort of work a lot of time.

It seems to be very complete, almost to a fault. There is definitely some chaff in with the grain. The database includes the lengthy Department of Energy efficiency regulations for consumer products, for example, apparently because those regulations explicitly *exempt* marine signal devices. And inclusion is an all-or-nothing matter, so the entire federal Clean Air Act is included, even though most of it has little connection to ocean or coastal protection.

This database is only a starting point for most analyses. No one should rely on it alone to tell them what the law is. For one thing, as Ekstrom acknowledges, it is a static snapshot of statutes and regulations as they stood on specific dates in 2006. It does not include more recent developments, such as the California Air Resources Board's low-sulfur fuel regulations for ships operating within 24 nautical miles of the state's coast. For another, it does not attempt to incorporate judicial opinions, which can invalidate or limit the effect of statutes and regulations. (Consider, for example, Pacific Merchant Shipping Ass'n v. Goldstene, 517 F.3d 1108 (9th Cir. 2008), enjoining enforcement of California's earlier clean marine fuels regulation.) It might be possible to link this database to more up-to-date web resources such as the Code of Federal Regulations online. It's tougher to imagine how to link it to relevant judicial opinions.

As for the merits of quantitative text analysis of statutes and regulations, I confess that I'm a

skeptic. The technique seems to rely strictly on counting how many times a document uses a specific term. The Ekstrom group adds links to responsible agencies to generate visualizations. But what do those visualizations mean? How important is the number of times a term is used as an indication of the scope or importance of a statute or regulation? Perhaps what this technique does best is to provide a rough indication of where it might be worth looking more closely for conflicts or gaps. But was all the work of compiling the database necessary for that purpose? Didn't we already know that multiple agencies have some jurisdiction over marine mammal protection, and a different group deal with shipping?

It will be interesting to see what uses people make of this database, and what sorts of quantitative analyses they generate. I'll be happy to see my skepticism proven wrong.