model would predict an elevation increase of only 20 cm (based on a constant 1.9 mm $year^{-1}$ rate of accretion). Therefore, dynamic accretion leads to a deepening of salt-marsh elevations relative to sea level of about 20 cm, whereas the SLAMM5 model predicts deepening of at least 60 cm (a habitat switch would increase the depth change further by decreasing accretion rates).

Although Craft *et al.* conclude that 20–45% of salt marshes will convert to open water, our results illustrate a tendency for marshes to adjust to accelerating SLR rates and maintain their position within the intertidal zone. Such a conclusion is consistent with observations that marshes accrete faster in regions with high rates of relative SLR (Stevenson *et al.* 1986), and generally maintain equilibrium with rates of SLR through time (eg Redfield 1972; Bricker-Urso and Nixon 1989; Friedrichs and Perry 2001).

Realistic predictions of the impacts of SLR on coastal wetlands and the uncertainties associated with them are needed to improve our understanding of their fate and the usefulness of these models to support management decisions.

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SLR and ecosystem services: a response to Kirwan and Guntenspergen

We respond to four points made by Kirwan and Guntenspergen (K&G). First, K&G mention that uncertainties exist with model inputs in regard to the accuracy of source data and their reference to different datums, which are mathematical surfaces on which mapping and coordinate systems are based. The "sea level affects marshes model" (SLAMM) used elevation data based on light detection and ranging (LIDAR), where available, or more commonly the National Elevation Dataset (NED). Prior to input, the NED, wetland cover, and tidal data were all standardized to the same horizontal and vertical datums. K&G cite the 2.44-m root mean square error estimate for the NED that, although applicable to the entire dataset, underestimates accuracy within our study region for two reasons: (1) throughout our study region, the NED was produced from 1:24000-scale hypsography, using the two methods with the highest accuracy (Gesch 2007), thereby reducing errors relative to the entire NED; (2) the 5-ft (~1.5-m) contour intervals in our study domain are smaller than the 10-ft (~3-m) intervals typical in inland areas, again reducing errors relative to the NED as a whole. Nevertheless, K&G are correct that SLAMM did not incorporate error estimates into this analysis. We recognize that the ability to perform uncertainty analysis is a desirable model feature and plan to implement it for future publications. Producing detailed maps for local planning purposes, however, was not the goal of our paper (see our fourth point below).

Second, K&G question whether current marsh accretion rates in different habitat types are a good predictor of future accretion rates. Instead, they suggest that marsh accretion is controlled more by mineral sediment deposition than by in situ organic production and accumulation, and speculate that sediment deposition could become decoupled from vegetation type as sea level rises. We disagree. In Georgia tidal marshes, sediment deposition (r = –0.94), root decomposition (r = 0.76), accumulation of soil organic matter (r = –0.79), and vertical accretion (r = –0.69) are all strongly correlated with salinity (Craft 2007). SLAMM assumes – we believe correctly – that these relationships will remain coupled as sea level rises. In river-dominated estuaries, SLAMM predicts shifts in marsh habitats in response to predicted changes in salinity. The model implicitly assumes that the turbidity maximum relocates with marsh habitat type as sea level rises, resulting in accretion rates that remain constant within marsh types.

Third, K&G suggest that our model results probably overestimate the amount of tidal marsh loss in Georgia, because SLAMM lacks positive feedbacks (eg increased inundation, sedimentation, and vertical accretion) that may occur in response to accelerated sea-level rise (SLR) if sediment supply is adequate. SLAMM represents a tradeoff of mechanistic detail for broad spatial coverage. We agree that incorporating more detailed mechanisms about vertical accretion (and other processes) would increase the ability of a model to precisely predict marsh responses at small spatial scales; several such detailed models already exist (Temmerman *et al.* 2003; D'Alpaos *et al.* 2006; Kirwan and Murray 2007). In contrast, the broad spatial scale of SLAMM allows a regional assessment of changes in coastal habitats in response to accelerated SLR, something that more detailed mechanistic models operating at small spatial scales do not offer.

Fourth, and most importantly, K&G's focus on the exact amount of marsh area that may be lost with SLR misses our study's main point. Regardless of how a model is constructed, because different tidal marsh habitats provide different ecosystem services or degrees thereof, one cannot predict how SLR will alter the delivery of these services based solely on changes in tidal marsh area. A predictive understanding of how ecosystem services will change with SLR requires not just predictions of future marsh area, but also data on how ecosystem services vary among marsh types.

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Missing the point

In criticizing the film *Hotspots* and the role of Conservation International (CI) in its production, Katherine Ellison (*Front Ecol Environ* 2008; **6[9]**: 512) not only disapproves of conservation groups' self-promotion but also their efforts to pursue strategic partnerships with corporations. However, such publicity draws attention and funds to environmental causes, and corporations are often best positioned to implement positive change. This article not only fails to grasp the realities in pursuing large-scale conservation, but also risks misleading readers about the intentions of the conservation community.

Ellison acknowledges that "the plight of vanishing species needs more public attention", but criticizes CI for collaborating on a film that highlights this crisis. CI is in the business of conserving biodiversity and has, as its guiding mission, a directed strategy to target hotspots of such diversity. This film is a natural opportunity for CI to promote its mission and its efforts. Non-profit organizations rely on private donations and public funding to support the causes they advocate. Free exposure through media such as film offers a cost-effective alternative to advertising by other means, ensuring that more funds may be devoted to conservation efforts. Ellison suggests that the "hotspots" concept is more a fundraising tactic than a conservation strategy. In fact, it is both. While the core of an incredibly successful fundraising campaign, the success of hotspots is largely based on its status as a sound concept that is targeted, easily communicated, and driven by science. It is true that biodiversity is only one element of conservation; there is also a need for greater efforts to understand and maintain complex ecosystem interactions, preserve critically threatened environments with lower levels of diversity, and sustain systems that are currently robust. But conserving hotspots is one effective approach.

Ellison also targets so-called "green groups" for partnering with business and industry. Undoubtedly, potential conflicts of interest in such partnerships must be considered, and efforts made to ensure that specific objectives are reached. But the reality is that targeted collaboration with industry often represents the single greatest opportunity to influence conservation outcomes. These engagements are challenging but critical if conservation solutions are to match the global scale of environmental crises. Established partnerships provide opportunities for conservation groups to shape industry responses and often offer more traction than confrontation. Readers interested in these topics should investigate programs such as those of the Center for Environmental Leadership in Business at CI (www.celb.org), and the Wildlife Conservation Society (WCS) Project for Ecosystem Management in the Nouabalé-Ndoki Periphery Area (www.wcs-congo.org).

As former employees of CI and WCS, we envision international conservation not as a brake on development, but as a broad and multifaceted movement to promote more sustainable outcomes. Success demands that conservationists pursue diverse and creative strategies and operate at multiple scales. We are facing a biodiversity crisis and should encourage opportunities to raise the funds and interest necessary to promote effective science-based conser-