% Question/TODO: Issue: the loop boundaries for ocean and land uptake

% (biobox, joos\_general\_fast\_annotate2.m)

%

% at the moment, the ocean year vector is longer than the land year vector.

%

% for biobox, year vector is (defined in nonlin\_land\_Qs\_annotate.m):

% ts = 12; % timesteps per year

% start\_year = 1850;

% end\_year = 2009+(7/12);

% year = start\_year:dt:end\_year; (MLOinterp)

%

% for ocean (joos\_general), year vector is:

% start\_year = 1800;

% end\_year = 2010;

% dt = 1/ts (MLOinterp)

% year = start\_year:dt:end\_year; (MLOinterp)

% note: fas goes from 1800 to 2010

% Index exceeds matrix dimensions.

%

% Error in ForwardModel\_Driver2 (line 173)

%     fas(i,2) = (kg/Aoc)\*(dpCO2a(i,2) - dpCO2s(i,2)); % air-sea flux of CO2

% TODO: set up arrays

% delC1(:,1) = year\_land(:,1);

% delC1(:,2) = zeros(length(year\_land),1); %delC1(:,2) = zeros(size(year\_land));

% % line above changed because threw error "assignment more non-singleton rhs

% % dims than non-singleton subscrips (even though this error doesn't seem to

% % happen in the LR CO2 code) hm. Same change below.

% % want this to be a vector of 1916x1 dims of all zeros

% % update: this didn't throw an error in LR code because likely at the time

% % of the call, year was dims 1916 x 1, so zeros produced a matrix of

% % dimensions 1916 x 1 of all zeros, which fits into the first column of

% % delC1 and therefore doesn't produce an error. I'm sidestepping this by

% % forcing the dimensions of the zeros matrix to be length(year\_land),1

% % (instead of transposing the year vector at some point to get it to work).

% delC2(:,1) = year\_land(:,1);

% delC2(:,2) = zeros(length(year\_land),1); %delC2(:,2) = zeros(size(year\_land));

% delCdt(:,1) = year\_land(:,1);

% C1dt(:,1) = year\_land(:,1);

% C2dt(:,1) = year\_land(:,1);

% delC1(length(year\_land)+1,1) = year\_land(length(year\_land),1)+dt;

% delC2(length(year\_land)+1,1) = year\_land(length(year\_land),1)+dt;

% not working. trying something else to get rid of non-singleton dim error:

    %note: line below throws error that exceeds matrix dims

    % Question: how to address making this stop when it gets to the last

    % point, like how do you treat the last point since they're functions

    % of the points one before?

    %if i <= length(year\_ocean2-1)

    % this needs work: is it actually a cumulative thing? or we're just

    % adding the change to the previous value or something

%        if i > 1

%         dpCO2a(i+1,2) = dpCO2a(i,2)+dpCO2a(i-1,2); % + dpCO2a(i-1,2);

%         end

    % I'm here now!

    % dpco2a(i+1,2) = dpco2a(i,2) + FF + LU - O - B; % updating pco2a, careful

    % dpco2s(i+1,2) =

    %dpCO2a(i+1,2) =

%     residual(:,2) = dtdelpCO2a(2521:4436,2) - ff1(1189:3104,2)....

% + Aoc\*fas(601:2516,2) - landusemo(1:1916,2);

% could make this a vector or just a variable that gets updated each

% iteration