The Oiled Wildlife Care Network may be presented with hundreds to thousands of live-captured wild birds in need of treatment during a large spill. Nutritional support for these animals during the rehabilitation process currently proceeds despite little published information on the needs of affected species. The clinically debilitated state in which oiled birds are typically presented complicates captive management. Not only does captivity itself alter a wild animal’s nutritional needs, but the physiological states of extreme stress and body catabolism may also change requirements for dietary energy or specific nutrients, as is known to be the case in other species. Large proportions of oiled birds are received for care markedly emaciated, anemic, and/or hypoproteinemic. To investigate the energy requirements of emaciated faunivorous species commonly affected by CA oil spills, live emaciated birds received for routine rehabilitation will have CO$_2$ production and O$_2$ consumption measured in an indirect calorimetry chamber. This will yield information not only on what substrate the bird is currently metabolizing, but will also allow calculation of basal metabolic rate. To identify which nutrients emaciated birds have catabolized and thus which require replacement, carcasses of emaciated birds that die in care will be compared to carcasses of healthy body condition individuals that die due to trauma by complete carcass nutritional analysis. To evaluate currently-used critical care diets and feeding regimens in regards to digestibility and ability to promote achievement of a positive patient energy and nitrogen balance, gavage input and fecal output will be compared nutritionally and calorically utilizing laboratory analysis and bomb calorimetry. Clinical improvement through the rehabilitation process will be monitored by daily body weight measurement and complete blood counts and clinical chemistries every 48-72 hours while enrolled in the study. All information will be used subsequently to identify shortcomings in current procedures and improve the nutritional support given to OWCN patients through use of diets based on the specifically identified needs of these species. The primary hypothesis of this study is that survival to release of oil spill affected faunivorous birds may be improved through administration of evidence-based appropriate and specific nutritional support.